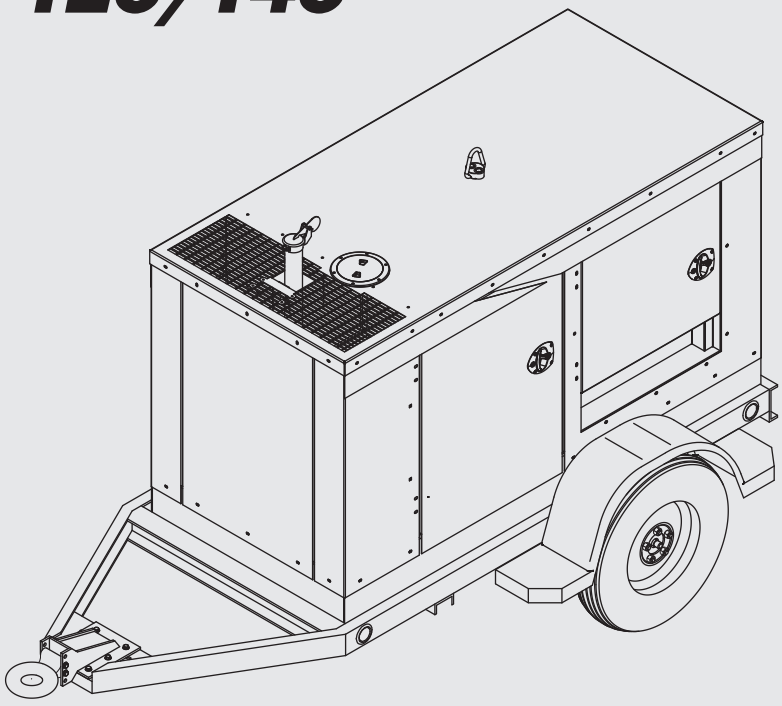
TEREX®

Operator/Service & Parts Manual

T25/T45



First Edition

Rev A1

Part No. 833008

June 2006
REV A

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⚠WARNING The operator must read and understand all the instructions in this manual before operating the machine.

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TEREX Model Number _____
Engine Model Number _____
Generator Model Number _____
Owner: _____
Options: _____
_____
_____
_____
_____

Serial Number _____
Serial Number _____
Serial Number _____
Ship to: _____

This Operation and Service Manual contains information specifically pertaining to the operation and maintenance of the TEREX T25I and T45I Super Quiet Generators. We suggest that you read this manual carefully prior to operating the generator. This manual should be retained and refered to for operation, maintenance and ordering parts. When ordering parts, **PLEASE INCLUDE THE MODEL AND SERIAL NUMBER** located on the nameplate of the generator . For major repair and service or other information, contact your TEREX dealer, or call or write to:

TEREX
P.O. Box 3147 (29732)
590 Huey Road
Rock Hill, SC 29730
Telephone: (800) 433-3026
FAX: (803) 366-1101

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INTRODUCTION

Owners, Users, and Operators:
TEREX appreciates your choice of our product for your application. Our number one priority is user safety which is best achieved by our joint efforts. We feel that you can make a major contribution to safety if you as the equipment users and operators:

- **Comply** with OSHA, Federal, State, and Local Regulations.
- **Read, Understand, and Follow** the instructions in this and other manuals supplied with this product.
- **Use Good, Safe Work Practices** in a common sense way.
- **Only have trained operators** — directed by informed and knowledgeable supervision — operating this product.

If there is anything in this manual that is not clear or which you believe should be added, please send your comments to TEREX Service Department in Rock Hill, SC.

THE SAFETY ALERT SYMBOL IS USED TO ALERT YOU TO POTENTIAL PERSONAL INJURY HAZARDS. OBEY ALL SAFETY MESSAGES THAT FOLLOW THIS SYMBOL TO AVOID POSSIBLE INJURY OR DEATH.

DESCRIPTION OF EQUIPMENT

The engine/generator assembly consists of a diesel engine combined with an electrical generator. This assembly is firmly bolted together to form an integral unit and does not require anything other than routine maintenance.

The engine is equipped with a 12-volt starter (24-volt starter optional) and can be wired for remote starting capability at the control panel.

A dry-element air cleaner is standard equipment to ensure a clean air supply, and a remote fuel/water separator is included for additional fuel system protection.

A governor on the engine provides a stable operating speed under varying load conditions, and the generator is equipped with a solid-state voltage regulator to stabilize the output voltage under these same conditions. Figures and schematics of both the governor and regulator are provided in the ***ENGINE*** and ***GENERATOR OPERATOR'S MANUALS***.

An automatic shutdown system is incorporated in the generator set to sense low oil pressure and/or high coolant temperature, and in either case the engine/generator assembly will automatically cease operation.

A diesel fuel tank is incorporated within the base of the unit to ensure an uninterrupted operating cycle under full load. The engine/generator assembly is mounted to the base using high durometer vibration isolators.

The enclosure for the generator set is constructed from 12 or 14-gauge sheet metal to ensure maximum rigidity, and is bolted together to allow easy access to major components if necessary. Four lockable, hinged access doors are provided for routine operation and maintenance.

The enclosure on the Super Quiet Generator is specifically designed for a high degree of sound attenuation. This allows the generator set to be operated in noise-sensitive environments. The interior of the enclosure is coated with sound-dampening polymer foam that is highly effective in noise suppression and is impervious to water, fuel, and oil.

A high ambient temperature radiator and a critical grade exhaust silencer are contained within the

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DESCRIPTION OF EQUIPMENT (Cont.)

enclosure as standard equipment.

A center-point lifting attachment is located in the top of the enclosure to allow crane lifting of the entire unit.

The generator set is mounted on a trailer equipped for highway operation. Hydraulic surge brakes are standard on larger generator sets for maximum stopping efficiency. Electric brakes are also available as an option.

GENERAL SAFETY

HAZARD CLASSIFICATION

A multi-tier hazard classification system is used to communicate potential personal injury hazards. The following signal words used with the safety alert symbol indicate a specific level of severity of the potential hazard. Signal words used without the safety alert symbol relate to property damage and protection only. All are used as attention-getting devices throughout this manual as well as on decals and labels fixed to the machinery to assist in potential hazard recognition and prevention.

⚠ DANGER Red - Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠WARNING Orange - Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠CAUTION Yellow with safety alert symbol - Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

CAUTION Yellow without safety alert symbol - Indicates a situation which, if not avoided, may result in property or equipment damage.

NOTICE Green - Indicates important installation, operation or maintenance information.



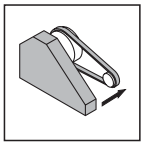
Hazardous voltage. Will cause serious injury or death.



Hot exhaust. Can contain carbon monoxide. Will cause serious injury or death.



Read all manuals that shipped with your equipment. Maintenance is done more easily and safely when you know what you're doing.



Keep all guards in place.



Wear hearing protection when you are near this equipment.

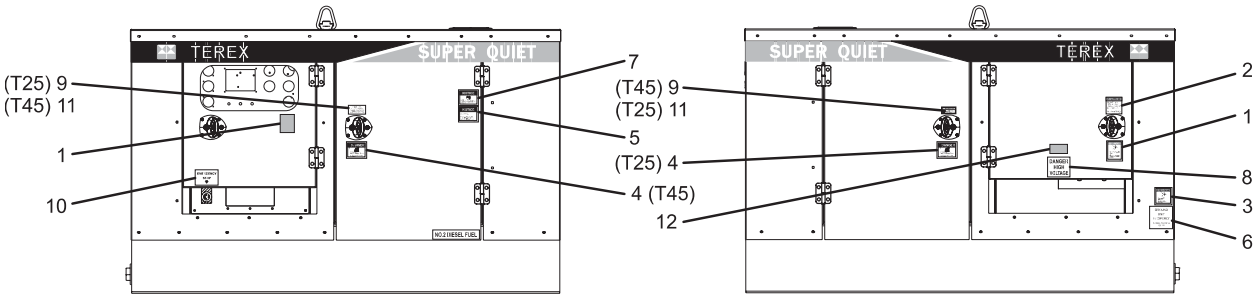


Lockout and Tagout. Equipment may be energized. Lockout and tagout all energy sources prior to performing maintenance adjustments.

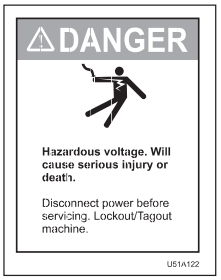
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GENERAL SAFETY (Cont.)

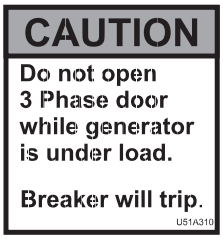
SAFETY SIGN LOCATIONS



Items shaded are hidden from view.



1



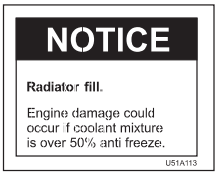
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7



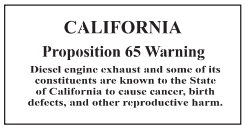
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GENERAL SAFETY (Cont.)

ACCIDENT PREVENTION



Use protective clothing and safety equipment. Always wear approved safety equipment such as gloves, safety boots, safety hard hat, goggles, ear protection, and dust masks when necessary. Wear protective clothing that is snug and belted where required.

UNAUTHORIZED WELDING

UNAUTHORIZED WELDING CAN CAUSE STRUCTURAL FAILURE OR PERSONAL INJURY.

DO NOT weld on any structural member.



Any unauthorized welding or repair procedure will void the warranty.

FUELING

ALWAYS handle fuel with care. It is highly flammable.

ALWAYS stop engine before refueling. Fill fuel tank outdoors.

DO NOT replace fuel lines with materials different from those supplied as original equipment.

FIRES CAN CAUSE SEVERE PERSONAL INJURY OR MACHINE DAMAGE.

Prevent fires by keeping the generator and its surrounding area clean.

DO NOT refuel while smoking or when near open flame or sparks.

DO NOT refuel the engine when it is hot. Allow to cool for several minutes before refueling.

DO NOT spill fuel inside the engine compartment. If fuel has leaked, wipe it up and have leak repaired before next use.

ALWAYS Have a fire extinguisher nearby. Be sure the
extinguisher is properly maintained and be familiar with its use. Extinguishers rated ABC by the NFPA are appropriate for all applications.

EXHAUST GASES ARE TOXIC. DO NOT USE INDOORS UNLESS PROPERLY VENTILATED OR AN EXHAUST SCRUBBER IS USED.

Check exhaust system regularly for leaks and ensure that the exhaust manifolds are secure and not warped. Make sure the unit is well ventilated.

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GENERAL SAFETY (Cont.)

ELECTRICAL SAFETY

THIS EQUIPMENT USES HIGH VOLTAGE CIRCUITS CAPABLE OF CAUSING SERIOUS INJURY OR DEATH. EXERCISE EXTREME CAUTION AROUND ANY ELECTRICAL COMPONENT WHILE OPERATING THIS UNIT.

Always ground the unit according to local codes. A grounding lug has been added to the base frame for your convenience.

Beware of cut or damaged power cords. Have a qualified electrician replace any damaged cords immediately.

DO NOT TOUCH HOT PARTS.

The exhaust manifold and tail pipe are very hot. Parts of the engine are also hot. Use protective gloves when handling hot parts.

BATTERY HAZARDS

LEAD ACID BATTERIES CAN BE DANGEROUS. THE SULFURIC ACID IN THE BATTERY CAN CAUSE SEVERE SKIN AND EYE BURNS. THE HYDROGEN GAS EMITTED DURING CHARGING CAN EXPLODE IF AN ARC OR FLAME IS PRESENT.

DO NOT smoke while servicing the battery.

DO NOT allow tools to touch battery terminals and create an arc.

Disconnect the negative terminal of the battery when working on the engine or other parts to prevent accidental arcing. Disconnect the negative cable at the end away from the battery.

DO NOT remove the vent caps when charging the battery.

Always wear eye protection when servicing the battery.

If acid gets on skin or eyes, immediately flush under running water and obtain medical attention.

KEEP ALL BODY PARTS AND CLOTHING AWAY FROM MOVING PARTS.

Loose jackets, shirts, sleeves, jewely and especially neckties should not be worn while working on or running the unit.

Only remove guards or protective devices from unit temporarily to gain access for maintenance. Always replace guards immediately after servicing. Never remove guards while unit is operating.

Keep your hands away from moving parts, particularly clear of the radiator fan and alternator belts when the engine is running.

BEWARE OF TRAFFIC HAZARDS

Stand clear of traffic when starting or checking the unit along the road.

Check the fuel tank, oil pan, and fuel and oil lines for leaks that would spill fuel or oil on the road.

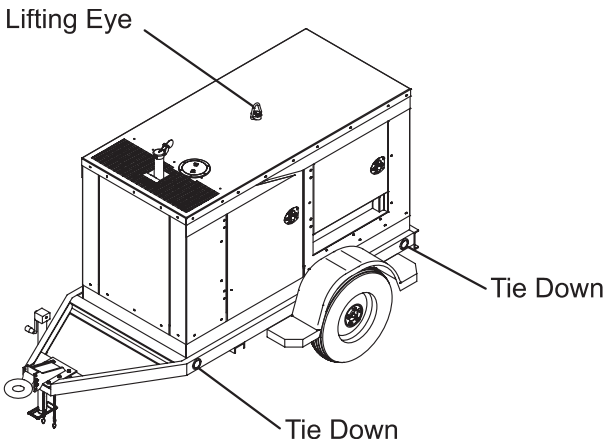
Check fasteners and mounting brackets periodically to insure all are tight and nothing is in danger of falling off during transit.

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GENERAL SAFETY (Cont.)

BE CAREFUL WHEN LIFTING. NEVER SUSPEND ANY OTHER EQUIPMENT FROM THE SHIPPING TIE DOWNS.

Use the lifting eye for lifting the trailer (with cabinet). Make sure any tie-downs at the bottom of the trailer are released prior to lifting.



NEVER CLIMB ON TOP OF THE CABINET.

RECEIPT OF DELIVERY CHECKLIST

The generator will be serviced, tested and ready for operation upon delivery. Terex recommends the following checks:

- ☐ Insure there is no freight handling damage which should be charged against the carrier.
- ☐ Check the front jack for security and proper operation.
- ☐ Check that the tires are not damaged, under inflated or that any lugs are loose.
- ☐ Check the engine/generator for obvious damage, loose connections, or leaks.
- ☐ Check the control panel for damage or loose connections.
- ☐ Check the exhaust system for damage.
- ☐ Check all fluid levels; battery, radiator, and engine oils.
- ☐ Ensure manuals are in the pocket provided inside the unit.

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TRANSPORT & TOWING

All trailer-mounted Terex Super Quiet Pac generators are designed for highway and off road towing capability. Please consult state and local transportation codes before transporting the generator set. Additionally, all state and local traffic laws take precedence over the following instructions whenever differences arise between them.

- Make sure the towing vehicle is of adequate size to both tow and stop the unit.
- Disconnect all wiring and cabling (including the ground wire) from the generator set.
- Close and latch or lock all access doors.
- Using the front leveling jack, raise the trailer hitch to an adequate height so that the generator can be securely attached to the transporting vehicle.
- Ensure that the coupler is properly secured to the towing vehicle and attach the safety chains. Attach the “breakaway” chain on the surge brake and the electrical coupler if these options are included on the unit.

ALWAYS USE THE PROPER TRAILER HITCH AND SAFETY CHAINS. OBEY ALL LOCAL OR STATE D.O.T. LAWS WHEN TOWING A GENERATOR.

FAILURE TO PROPERLY SECURE THE TRAILER TO THE TOWING VEHICLE MAY RESULT IN SERIOUS INJURY OR DEATH.

- Retract and rotate the front leveling jack into its stowed position.
- Check the tires for proper inflation and verify that the lug nuts are tight.
- If equiped with towing lights, connect the electrical coupler to the towing vehicle.
- Observe posted speed limits for trailers. Generally, do not exceed **45 mph** on paved roads and **10 mph** on unpaved roads.

EXCEEDING THESE RECOMMENDED SPEEDS CAN CAUSE SEVERE DAMAGE TO THE UNIT. DAMAGE CAUSED BY THESE UNSAFE PRACTICES WILL VOID THE MANUFACTURER’S WARRANTY.

SETUP

Move the generator set to the desired location keeping the following in mind:

- The spot where the generator set is positioned should be relatively level.
- The location selected should be centrally located to equipment requiring the loads to minimize voltage drop in the power cord.
- Locate so power cords can be routed without crossing roads and access routes.
- Locate where the engine will get good ventilation. Do not locate where fumes will enter a building.
- Do not place beside a building wall that would reflect and intensify noise.

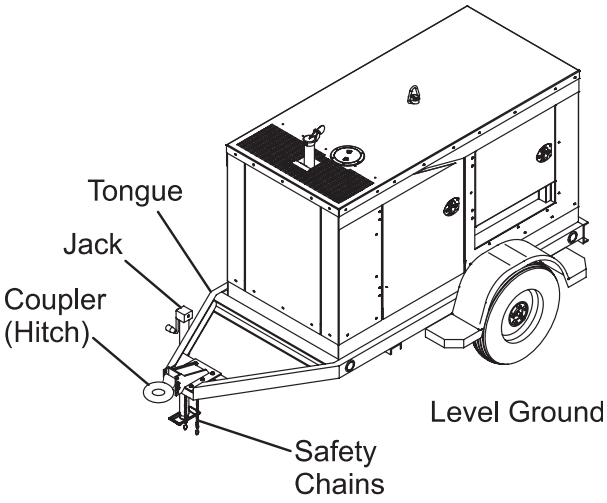
Unhitch from the towing vehicle as follows:

- Locate the generator set in the desired location.

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SETUP (Cont.)

- If the axle is sloped downhill, turn the generator set so that the axle is level.
- Chock wheels if generator set is not on level ground.
- Unhook hitch, safety chains and running lights.
- Rotate the tongue jack into position (90 degrees), release the hitch pin and raise the tongue off the towing vehicle.
- Level the generator set with the tongue jack.



THE WHEELS MUST BE PROPERLY CHOCKED IF THE GENERATOR IS ON UNLEVEL GROUND. DO NOT OPERATE THE GENERATOR SET UNTIL IT HAS BEEN PROPERLY SECURED.

When preparing to start the generator set, follow the sequence listed below:

- Check the coolant level in the radiator, and add as necessary. If adding coolant, use only a 50/50 mixture of antifreeze and water. Refer to your engine manufacturer's maintenance manual for specific antifreeze information.

NEVER REMOVE THE RADIATOR CAP WHILE THE ENGINE IS RUNNING OR WHILE THE ENGINE IS HOT.

- Check the oil level in the engine crankcase, and add as required.

USE CLASS API, CC OR CD GRADE ENGINE OIL. REFER TO ISUZU ENGINE MANUAL FOR VISCOSITY AND QUANTITY.

- If the battery is not a maintenance free battery, check the electrolyte level in the battery and add distilled water if necessary.
- Check fuel/water separator for water in the fuel system. Drain water from separator if necessary.
- Check fuel level in the fuel tank and add as required. Check to insure the fuel tank vent is “open” and not clogged.

USE #2 DIESEL FUEL ONLY.

- Verify that the generator main circuit breaker is in the “**OFF**” position.
- Make sure the generator set is properly grounded. This is accomplished by connecting the grounding lug provided at the rear of the generator set enclosure to a mechanical earthground with a minimum 2/0 size #4 bare electrical cable. If this differs from your local code, always follow the local code for grounding.

THIS GENERATOR SET PRODUCES VOLTAGES THAT CAN CAUSE SEVERE SHOCK OR DEATH! ONLY QUALIFIED ELECTRICIANS SHOULD PERFORM ELECTRICAL WORK.

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OPERATING INSTRUCTIONS

STARTING THE ENGINE/ GENERATOR SET

NEVER ATTEMPT TO START THE GENERATOR SET WITH ANY OF THE CIRCUIT BREAKERS "ON". THESE BREAKERS ARE LOCATED ON THE DISTRIBUTION PANEL. STARTING WITH THE BREAKERS "ON" CAN CAUSE DAMAGE TO THE GENERATOR.

Once setup procedures are completed, the generator set is ready to be started. Start the unit according to the following steps:

- Make sure the **GENERATOR VOLTAGE SELECTOR SWITCH** has been set to the proper range.This switch should be located above the 3-phase distribution panel. (**DISREGARD IF THE UNIT DOESN'T HAVE A SELECTOR SWITCH. THIS UNIT IS PRESET FOR ONE VOLTAGE. SEE NAME TAG**.)

NEVER CHANGE THE POSITION OF THE VOLTAGE SELECTOR SWITCH WHILE THE GENERATOR IS RUNNING! THIS WILL RESULT IN IMMEDIATE DAMAGE TO THE SWITCH, THE GENERATOR, OR THE CONNECTED EQUIPMENT. IT MAY RESULT IN SERIOUS INJURY TO THE OPERATING PERSONNEL.

- Place the toggle switch in **"ON"** position then press the **MANUAL ("MAN") BUTTON** on the Cascade Controller**.** The unit will start an automatic timing sequence . After the timing sequence the engine will attempt to start. Make sure all debris and obstructions have been cleared from moving parts and electrical terminals. The generator will only make 3 attempts at starting before it must be reset with the switch.
- Now that the generator set is running, allow five minutes for warm-up time.
- Listen for any unusual sounds or excess vibrations that could signal problems and require immediate shutdown of the unit. Should unusual sounds be detected, shut the unit down, and contact **TEREX** Service.
- Once the engine has been started and running smoothly, the following gauges should be monitored. All gauges are located on the control panel.
- **Oil Pressure Gauge -** This gauge should read 30 psi or higher.
- **Coolant Temperature Gauge -**This gauge should read between 170-200 degrees F.
- **Voltmeter -** This gauge should read at least 12 volts DC to indicate the diesel engine's alternator is charging properly.
- **AC Voltmeter -** This gauge should reflect the proper voltage selected for this operation.
- **AC Ammeter -** The reading on this gauge should be zero since the main breaker is in the "OFF" position. Once a load is applied to the generator, the ammeter will produce an appropriate reading.

OPERATING INSTRUCTIONS (Cont.)

LOADING INSTRUCTIONS

If all readings are correct, an electrical hookup can be made to the generator set. To make the electrical hookup to the generator set, observe the following set of procedures:

SHUT DOWN THE GENERATOR SET BY PRESSING THE "OFF" BUTTON ON THE CASCADE CONTROL PANEL. SWITCH THE TOGGLE TO THE "OFF" POSITION BEFORE MAKING ANY ELECTRICAL CONNECTIONS. THE MAIN GENERATOR BREAKER SHOULD BE IN THE "OFF" POSITION.

- Shut down the generator set.
- Connect the desired electrical apparatus to the generator set, while making sure no other power source is connected to the same apparatus.
- Restart the engine and monitor the gauges as outlined in the "*Operating Instructions*" section under "*Starting the Engine/Generator Set*".
- Turn the required generator circuit breakers to the **"ON"** position.
- Monitor the AC Ammeter - If the needle deflects severely to the right and stays there, immediately turn the required generator circuit breakers to the **"OFF"** position.

SEVERE DEFLECTION OF THE AMMETER INDICATES A WIRING PROBLEM OR AN OVERLOAD PROBLEM. CONTINUED OPERATION UNDER THIS CONDITION WILL CAUSE DAMAGE TO THE GENERATOR AND/OR CONNECTED APPARATUS.

The needle on the ammeter will deflect to the right temporarily and then return to a normal reading if the unit is operating properly.

VOLTAGE SELECTOR SWITCH OPERATION

The **TEREX Super Quiet** generator sets rated from T25I and T45I are equipped with a **VOLTAGE SELECTOR SWITCH**. This switch can have three positions marked "**480/277**" and "**208/120**", or "**240/120**". Each position delivers a different output voltage to the **DISTRIBUTION LUGS**. The **SELECTOR SWITCH** and **DISTRIBUTION LUGS** are located on the **DISTRIBUTION PANEL**. The following instructions should be considered when operating the **VOLTAGE SELECTOR SWITCH**.

- Always make sure the voltage selector switch has been set to the desired range before starting the generator set.

THIS GENERATOR SET PRODUCES VOLTAGES THAT CAN CAUSE SEVERE SHOCK OR DEATH! ONLY QUALIFIED ELECTRICIANS SHOULD PERFORM ELECTRICAL WORK.

NEVER OPERATE THE VOLTAGE SELECTOR SWITCH WHILE THE GENERATOR IS RUNNING! THIS WILL RESULT IN IMMEDIATE DAMAGE TO THE SWITCH, THE GENERATOR, OR THE CONNECTED EQUIPMENT WHICH WILL ALSO VOID THE WARRANTY. IT MAY RESULT IN SERIOUS INJURY TO THE OPERATING PERSONNEL.

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VOLTAGE SELECTOR SWITCH OPERATION

- The voltage selector switch can control the single-phase receptacles provided on the unit. Their indicated voltages should be checked after selecting the setting of the switch. The Y voltage configurations of 480 and 240 will have a voltage of 139 on the GFI receptacles.

The voltage selector switch will have three positions, and each position gives a different output to the three-phase distribution lugs (designated as **"L1"**, **"L2"**, **"L3"**, and **"N"**) located on the distribution panel.

In the three-phase "**480/277**" position, the following will be the normal output voltages:

- **Line - to - Line ("L1" to "L2", "L2" to "L3", "L1" to "L3") 480 VAC/3P.**

- **Line - to - Neutral ("L1", "L2" or "L3" to "N") 277 VAC/1P.**

NOTICE: This three-phase wiring configuration is referred to as "Hi Wye".

In the three-phase "**208/120**" position, the following will be the normal output voltages:

- **Line - to - Line ("L1" to "L2" and "L2" to "L3"; "L1" to "L3") 240 VAC/3P.**

- **Line - to - Neutral ("L1", "L2", or "L3" to "N") 139 VAC/1P.**

NOTICE: This three-phase wiring configuration is referred to as "Lo Wye".

NOTICE: The above voltages can be "dialed down", or adjusted lower, by using the voltage adjustment potientiometer located on the generator main control panel.

OPERATING INSTRUCTIONS (Cont.)

THIS EQUIPMENT USES HIGH VOLTAGE CIRCUITS CAPABLE OF CAUSING SERIOUS INJURY OR DEATH! EXCERCISE EXTREME CAUTION AROUND ANY ELECTRICAL COMPONENT WHEN OPERATING THIS UNIT.

The three position selector switch has **HI WYE 480 V 3ph**., **LOW WYE 240 V 3ph**. and **240V** single phase that is **Zig Zag**. The following is the output voltages on the zigzag position.

- **Line 1-to-L3 240 VAC/1P.**

- **Line-to-Neutral 120 VAC/1P L2 is not used in this position.**

Once the required voltages are known, then the combination of the proper switch position and voltage adjustment potentiometer allows for fine tuning the voltage to the exact needs of the application.

ONCE THE PROPER VOLTAGE SELECTOR SWITCH POSITION IS SELECTED, TEREX HIGHLY RECOMMENDS THAT THE SWITCH BE PADLOCKED IN THAT POSITION. THIS PREVENTS THE SWITCH FROM BEING MOVED WHILE THE UNIT IS OPERATING OR BY UNAUTHORIZED PERSONNEL. DAMAGE TO THE UNIT AND ANY CONNECTED EQUIPMENT WILL BE AVOIDED.

OPERATING INSTRUCTIONS (Cont.)

DO NOT OPERATE THE UNIT UNLESS VOLTAGE HAS BEEN CHECKED AT DISTRIBUTION LUGS AND RECEPTACLES. CALL TEREX SERVICE IF YOU HAVE ANY QUESTIONS.

INSTALLATION AND ANY WORK PERFORMED ON THIS UNIT SHOULD BE DONE ONLY BY A QUALIFIED ELECTRICIAN.

DO NOT REMOVE OR COVER ORIGINAL SAFETY AND OPERATION DECALS. REPLACE ANY DAMAGED DECALS BEFORE USING THIS EQUIPMENT!

POTENTIOMETER (VOLTAGE ADJUSTMENT)

The potentiometer is set at the factory. However, if the voltage reading on the voltmeter is not as desired use the following procedure to make the necessary adjustments. With the unit running, under no load, observe the AC voltmeter. Locate the voltage adjustment knob on the control panel. The decal above the knob indicates the direction to turn the knob to increase or decrease the voltage. Turning the knob to the right increases the voltage while turning the knob to the left decreases the voltage. Slowly turn the adjustment knob in the desired direction, while observing the AC voltage meter, stop when the desired voltage is obtained. The unit is now ready to load. If the desired voltage cannot be reached contact the **TEREX Service Department** at 1-800-433-3026.

LED STATUS LIGHTS

Eleven LEDs separated into two banks (see "**Fig. 1**") are provided on the faceplate. The LEDs Bank 1 includes 6 LEDs and Bank 2 includes 5. In Setup mode, these banks form a binary code to indicate either the controller setup configuration or error status, which is indicated by the last 8 (red) LEDs. Refer to Tables 1, 2, 3 and 4 (See *"Cascade Controller Installation and Operations Manual"* supplied with unit) for configuration and status listings.

One LED is located next to the **"AUTO"** button to indicate that the controller is waiting for the remote start input to become active. The LED status lights are (from top to bottom) see "**Fig. 1**":

Engine running - If the green LED is on, then the unit is receiving a speed signal, indicating that the engine is above the crank cut speed.

ECU status - If the green LED is on solid, it indicates that in a J1939 application the ECU and the unit are communicating properly. If the LED is blinking slowly the ECU is broadcasting a mes-sage. If the LED is blinking fast, the ECU is NOT communicating properly.

Remote Start/ Crank Rest - If the green LED is on, then the remote start input is active and if the system is in **"AUTO"** mode, it will try to start. If the LED is blinking, the crank cycle has ended and is now in crank rest cycle.

Low oil pressure - If the red LED is on, the controller has caused the engine to shutdown and lockout. If the LED is blinking, the engine ECU has transmitted a SPN for an oil pressure related condition.

High Engine Temperature - If the red LED is on, the controller has caused the engine to shutdown and lockout. If the LED is blinking, the engine ECU has transmitted a SPN for an engine temperature related condition.

Overspeed - If the red LED is on, the controller has caused the engine to shutdown and lock out due to engine speed exceeding the setpoint.

Underspeed - If the red LED is on, the controller has caused the engine to shutdown and lock out due to engine speed falling below the minimum needed for proper operation.

Overcrank - If the red LED is on, the controller has exceeded the set number of start attempts

without receiving a valid speed signal indicating that engine speed is above crank disconnect. This causes the engine to shutdown and lockout.

Charge Fail - If the red LED is on, it indicates that the battery charging alternator is not charging the cranking batteries, or that the battery charger fail output is on.

Aux 1 - If the red LED is on, it indicates that this custom-configured input is active. On an ECU (ECM) equipped engine, if this LED is blinking slowly, it indicates that one or more engine parameters are near exceeding engine manufacturer's setpoints. If the LED is blinking fast, it indicates that one or more engine parameters have exceeded setpoints, the ECU has issued a fault - and most likely the engine has shut down.

Aux 2 - If the red LED is on, it indicates that this custom-configured input is active.

Overspeed & Underspeed - If these two LED's are both blinking, the controller has lost its speed signal.

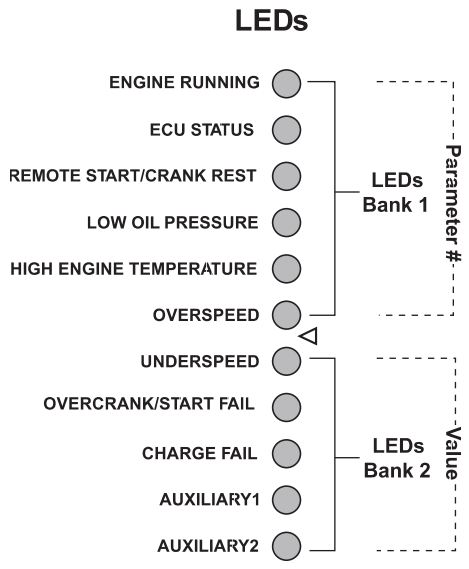


Figure 1

OPERATING THE CASCADE

When power is first applied, all LEDs will flash indicating a Lamp Test function. Refer to **Fig. 2** below for the following procedures.

- To manually start the engine, press the **"MAN"** (Manual) button. The controller will initiate a normal start sequence.
- To manually stop the engine (or turn off the controller) press the **"OFF"** button.
- To place the controller in automatic mode, press the button labeled **"AUTO"**. The LED next to the **"AUTO"** button should come on to indicate that the controller is waiting for the remote start input to become active to initiate a start sequence.
- To reset the controller, press the **"OFF"** button. Then correct the cause of the shutdown. This will clear all faults except when the aux inputs are programmed for either shutdown immediate or warning immediate, or if the engine ECU is broadcasting a shutdown fault.

In the event of a fault that causes the engine to shutdown, the cause of the event will be indicated on one of the 11 status lights on the right hand side of the controller (**See Fig. 1**). When the cause of shutdown is corrected, the controller can resume normal operation.

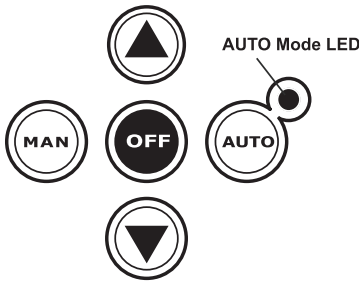


Figure 2

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OPERATING INSTRUCTIONS (Cont.)

OVERCURRENT PROTECTION

This relay is mounted behind the control panel and monitors the current draw and uneven current draw to protect the generator set. This trip setting is set at the factory with the proper kW using a loadbank.

THIS SETTING SHOULD NEVER BE CHANGED OR GENERATOR FAILURE WILL OCCUR.

The time delay setting is on the right side of the relay and this setting may need to be adjusted. If the overcurrent is tripping on small load conditions, the time delay setting needs to be turned clockwise a 1/4 turn. This should correct the problem.

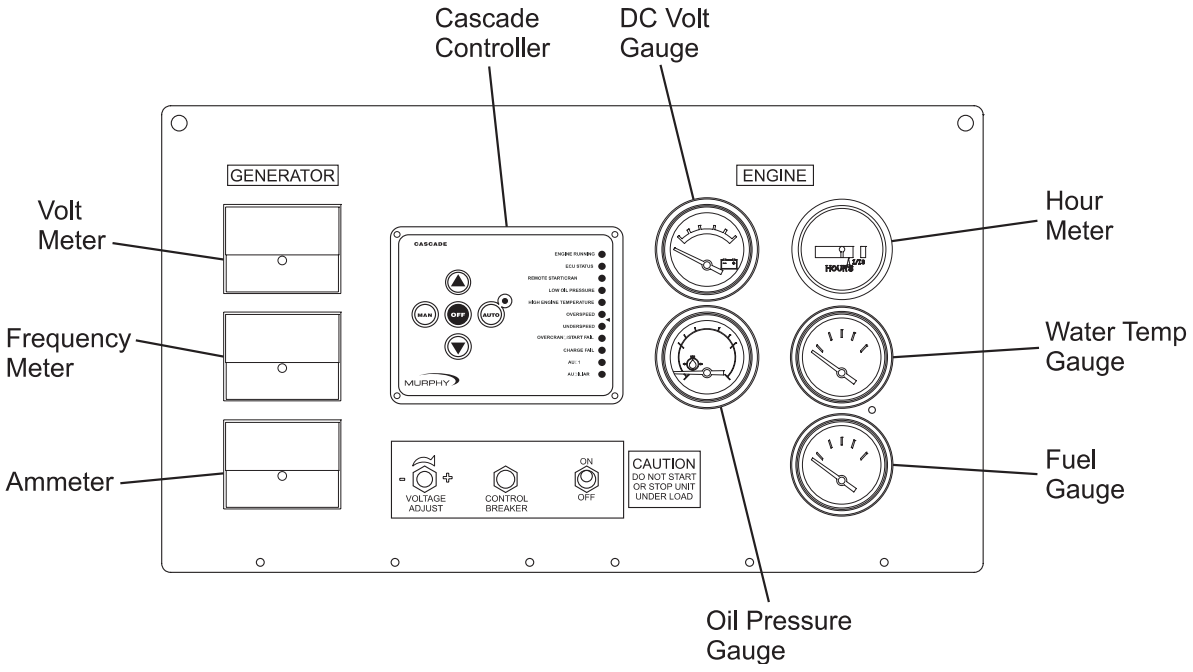
NOTICE: Call TEREX Service for wiring and troubleshooting information.

SHUTDOWN PROCEDURES

NEVER SHUT THE UNIT DOWN WHILE UNDER LOAD. THIS COULD CAUSE SERIOUS INJURIES TO THE PERSON OPERATING THE MACHINE OR DAMAGE THE GENERATOR.

NEVER SHUT THE UNIT DOWN WITH THE MAIN GENERATOR CIRCUIT BREAKER IN THE "ON" POSITION. THIS CAN CAUSE DAMAGE TO THE GENERATOR AND/OR THE CONNECTED APPARATUS.

- Turn all generator breakers to the **"OFF"** position.
- Allow the engine to run for 5 minutes under no load until the coolant temperature gauge reads approximately 175°F as a cool down cycle.
- Stop the engine by pushing the Cascade Controller **"OFF"** button.



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MAINTENANCE

MINIMUM MAINTENANCE PROCEDURES

The following maintenance intervals are only suggested by TEREX. You should always check your engine owner's manual for specific information. Should you find any discrepancies between the TEREX Super Quiet Generator Manual and the Engine Manufacturer's Manual always follow the Engine Manufacturer's Manual.

Every 8 Hours of Operation:

- Check the crankcase oil and fill as required.
- Check the fuel tank level and fill as required.

EXPLOSION HAZARD. NEVER ADD FUEL TO THE UNIT WHILE IT IS RUNNING. THIS CONSTITUTES A SEVERE FIRE HAZARD THAT CAN CAUSE DAMAGE TO THE UNIT AND INJURY TO THE OPERATOR.

Daily:

- Check the engine and generator for any loose bolts, connections, and fittings.
- Check the coolant levels and fill as required.
- Check the fuel/water separator for the presence of water contamination. Drain as required.

WATER CONTAMINATED FUEL WILL CAUSE SEVERE DAMAGE TO THE INJECTION AND FUEL PUMPS.

BURN HAZARD NEVER REMOVE THE RADIATOR CAP OR CHECK ELECTOLYTE LEVELS ON A HOT UNIT. THIS COULD RESULT IN SEVERE BURNS TO THE OPERATOR.

Note: Use a 50% solution of water and antifreeze for the engine coolant. Refer to your engine manufacturer's maintenance manual for specific antifreeze information.

DAILY

- Oil Level and Condition
- Oil Leakage Check
- Oil Pressure Gauge Reading
- Oil Pressure Warning Lamp
- Fuel Leakage Check
- Drain Water From Fuel Filter
- Coolant Level and Condition
- Coolant Leakage Check
- Radiator Filler Cap
- Fan Belt Tension Check
- Coolant Temperature Reading
- Electrolyte Level Check
- Battery Cleaning
- Battery Charge Condition
- Ammeter Reading
- Charge Warning Lamp
- Preheating Condition Check
- Engine Vibration and Noise Levels
- Exhaust Smoke Condition

50 HOURS

- Change Oil and Filter

250 HOURS

- Change Oil and Filters

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MAINTENANCE (Cont.)

500 HOURS
- Change Oil and Fuel Filter
- Replace Fuel Filter
- Injection Nozzle Check
- Clean Radiator Surface

750 HOURS
- Replace Engine Oil

1000 HOURS
- Change Oil and Filter
- Replace Fuel Filter
- Injection Nozzle Check
- Coolant System Circuit Cleaning
- Starter and Alternator Check and Cleaning
- Cylinder Compression Pressure
- Valve Clearance Check
- Feed Pump Strainer Cleaning
- Clean Radiator Surface

1250 HOURS
- Replace Engine Oil
- Water Pump Grease Change
- Coolant System Circuit Cleaning
- Starter and Alternator Check and Cleaning

1500 HOURS
- Change Oil and Filter
- Replace Fuel Filter
- Injection Nozzle Check
- Clean Radiator Surface
- Positive Crankcase Ventilation Valve Cleaning

CLEANING

The TEREX Super Quiet Generators employ various electronic controls that may be damaged by liquid spray washing or high pressure washing. Follow these procedures to prevent any damage to these components.

DO NOT SPRAY WATER INTO THE UNIT WHILE IT IS RUNNING. THIS MAY RESULT IN INJURY OR DEATH BY ELECTRIC SHOCK.

Exterior Cleaning:

- The exterior housing may be washed by most conventional cleaners and methods.
- The exterior housing may be waxed using any conventional automotive wax.

Interior Cleaning:

- Using a damp cloth covered with a mild soap, carefully clean around any electric controls, generator, and thermostats.
- The base and housing foam may be cleaned with a damp cloth covered with mild soap.

CARE AND SERVICING AIR FILTERS

A common belief in air filtration is that new clean filters are the best. In reality, a filter is the least efficient it will ever be when it is first installed. Filter paper is specially designed paper that is woven with a series of small openings that allows air to pass through it and dust to be stopped. As small particles of dust are trapped in the paper, the holes become smaller and the efficiency increases.

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MAINTENANCE (Cont.)

Enginaire filtration systems using staged precleaners, keep large particles of dust from the air stream, which would bridge across the element and cause premature filter failure.
The most common cause of engine failure due to dust ingestion is over servicing.

DO NOT USE VISUAL INSPECTION TO DETERMINE FILTER FAILURE.

Use a dust load indicator (vacuum gauge) to determine when the filter should be changed. These are available in many configurations but should trigger when 10-15 inches of water column over the clean element is reached. When you remove a filter from the canister, the seal is broken and loose particles of dust can fall into the outlet and be drawn into the engine the next time it starts. Leave the inner (safety) element installed, as this will protect against loose debris entering the engine.

General cleaning of cartridges should be accomplished by either a light brushing or mild air pressure application.

NEVER DIRECT A HIGH-PRESSURE AIR STREAM DIRECTLY INTO A FILTER PACK AS IT MAY RESULT IN MEDIA BREAKDOWN. NEVER TAP A FILTER TO REMOVE DIRT AS THIS COULD DAMAGE THE SEALING SURFACES.

Carefully remove any loose dust from the canister- using a vacuum and then wipe with a damp cloth.

NEVER BLOW AIR INTO THE CANISTER AS IT MAY FORCE DIRT INTO THE ENGINE.

Make sure the sealing areas of the canister and the element are clean and free of defect before installing the element. The safety element should be changed sparingly (every three or four filter changes) and extreme care should be taken to not allow dirt to enter the engine when the safety element is removed.

NEVER WASH THE CANISTER WITH HIGH PRESSURE WATER AS IT COULD DAMAGE OR BREAK THE PRECLEANER ROTOR.

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TROUBLESHOOTING GUIDE

The engine/generator set is tested and set at the factory for proper operation in the field. These units should never require additional adjustments in the field. If needed, adjustments should only be made by a qualified service technician, otherwise the manufacturer's warranty may become void.

FAULT	POSSIBLE CAUSE	SOLUTION
No generator output voltage	Circuit breaker tripped	Reset circuit breaker
	Voltage regulator	Check voltage regulator wiring
	Defective voltage regulator	Replace voltage regulator
	Defective Selector Switch	By pass by hardwiring generator
	Defective generator	Refer to generator manual
Low generator output voltage	Voltage adjustment set too low	Adjust voltage potentiometer
	Defective potentiometer	By pass or replace
	Low engine speed	Call TEREX Service
	Loose wire on voltage selector switch	Check wiring
	Fluctuating or surging engine speed	Check engine fuel, oil, and air filters
	Loose wire on voltage regulator sensing circuit	Check wiring
	Defective voltage regulator	Replace voltage regulator
High generator output voltage	Voltage adjustment potentiometer	Adjust potentiometer
	High engine speed	Call TEREX Service

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TROUBLESHOOTING (Cont.)

FAULT	POSSIBLE CAUSE	SOLUTION
High generator output voltage	Defective automatic voltage regulator	Replace voltage regulator
	Loose wire on voltage adjustment potentiometer	Check wiring
Fluctuating generator output voltage	An “ON/OFF” type load may be the cause	Redistribute load if possible
	Fluctuating or surging engine speed	Check engine fuel, oil, and air filters
	Loose wiring in generator	Check connections
	Automatic voltage regulator stability setting may be wrong	Call TEREX Service
	Loose wire on the automatic voltage regulator sensing lead	Check wiring
Low engine speed	Engine speed adjustment has slipped	Call TEREX Service
	Clogged fuel system	Check for air leaks, clogged fuel filter, kinked fuel line, or clogged fuel pick-up tube
	Blocked air intake	Check air filter
	Blocked exhaust system	Check engine exhaust system, remove obstructions
	Contaminated fuel	Check fuel/water separator and fuel tank for contamination. Replace fuel if needed
	Defective governor on engine	Call TEREX Service

TROUBLESHOOTING (Cont.)

FAULT	POSSIBLE CAUSE	SOLUTION
Low Speed	Defective injectors on engine	Have injectors checked by a qualified technician
	"Surging" engine speed	Check engine fuel, oil, and air filters
Engine turns over (cranks), but won't run	Unit out of fuel	Check fuel level in tank, fill as needed
	Loose or broken wire in control circuit fuel injection pump solenoid	Check wiring to verify 12V DC is being supplied to the pump solenoid
	Defective solenoid	Replace solenoid
	Magnetic Pick-up	Adjust for 2.5-3.0 VAC
	Clogged fuel system	Check fuel system
	Air in fuel system	"Bleed" fuel system
	Defective fuel pump	Check and replace if defective
	Clogged air intake	Check air cleaner
	Clogged exhaust	Check exhaust system
	Contaminated fuel	Check fuel/water separator and tank for contamination
	Defective injectors	Have injection system checked by a trained technician
	Lost engine compression	Have compression checked by a trained technician
Engine won't crank	Loose battery cable or discharged battery	Check cables and battery electrolyte level. Recharge as necessary

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TROUBLESHOOTING (Cont.)

FAULT	POSSIBLE CAUSE	SOLUTION
Engine won't crank	Engine "ON/OFF" switch set in "OFF" position	Check switch position
	Blown fuse in DC control circuit	Replace with 25 Amp. SLO-BLO TYPE fuse if needed.
	E-Stop	Check to see if engaged
	Defective starter solenoid	Replace solenoid
	Defective starter	Replace starter
	Oil Pressure or Hi temp switch defective	Check or call TEREX Service
	Seized engine	Have engine checked by a qualified technician
Engine runs, but loses speed	Unit is overloaded	Reduce load
	Improper connection	Check or Call TEREX Service
Engine runs, but loses power under load	Clogged fuel system	Check fuel system air in fuel lines
	Blocked air intake	Check air cleaner
	Blocked exhaust	Check exhaust system
	Contaminated fuel	Check fuel/water separator and fuel tank for contamination
	Faulty governor, defective injectors, or defective fuel pump	Have unit checked by a trained service technician for all of these items
Engine shuts down automatically and TROUBLE LIGHT on CONTROL PANEL is illuminated	Oil Pressure Switch	Not opening
	Improper coolant or water mixture	Use a 50/50 on mix of water and anti-freeze only

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TROUBLESHOOTING (Cont.)

FAULT	POSSIBLE CAUSE	SOLUTION
Engine shuts down automatically and TROUBLE LIGHT on CONTROL PANEL is illuminated	Overloaded engine	Reduce load
	Broken fan belt	Inspect fan belt and replace as needed
	Defective thermostat or thermocouple switch	Inspect thermostat switch
	Defective water pump	Inspect water pump and replace if needed
	Blocked cooling air inlet or exhaust	Inspect and remove any obstructions
	Defective or grounded temperature switch	Inspect switch and repair or replace
	Defective injectors or injector pump	Have the engine inspected by a trained service technician
	Low crankcase oil level	Check oil level and refill as required
	Defective oil pump	Have the engine inspected by a trained service technician
	Defective or grounded oil pressure switch	Inspect switch and repair or replace

IF YOU FEEL AN ELECTRIC SHOCK AT ANY TIME WHILE OPERATING THIS UNIT, SHUT IT DOWN IMMEDIATELY! HAVE THE UNIT INSPECTED BY A TRAINED ELECTRICIAN.

THIS ENGINE/GENERATOR SET IS FACTORY INSTALLED, TESTED, AND SET FOR FIELD OPERATION. ANY DAMAGE TO THE ENGINE OR GENERATOR UNITS OCCURRING AFTER ADJUSTMENTS ARE MADE IN THE FIELD BY UNAUTHORIZED PERSONNEL WILL NOT BE COVERED BY YOUR MANUFACTURER'S WARRANTY AND WILL ALSO VOID THE MANUFACTURER'S WARRANTY ON THIS PARTICULAR UNIT. IF YOU CAN NOT REACH YOUR LOCAL DEALER, CONTACT THE FACTORY SERVICE MANAGER TOLL FREE AT 1-800-433-3026.

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ELECTRICAL TROUBLESHOOTING

5 COMPONENTS THAT CAUSE VOLTAGE RELATED PROBLEMS

POTENTIOMETER

Connects to voltage regulator. Bypass potentiometer by unplugging from voltage regulator and installing jumper on 2 male spades on regulator.

VOLTAGE REGULATOR

(Located inside the upper control panel behind the gauges.)

Measure DC voltage at F1 & F2. Normal voltage is 10 to 12 V DC. Remove 2 wires marked (F1, X)(F2, X X) from voltage regulator. Connect wire marked F1 to positive and F2 to negative of a 12 volt battery. Start unit and measure voltage. If unit produces close to maximum output, replace Automatic Voltage Regulator.

VOLTAGE SELECTOR SWITCH

The correct way to test is to disconnect from generator and hard wire the generator into one configuration. This will eliminate the switch from the circuit and verify that the generator is functioning properly. All contacts should be checked following the proper schematic with the switch disconnected from the generator set. Actual loads can cause failures in contacts that cannot be duplicated using a meter.

OVERCURRENT RELAY

This device causes the 3-phase breaker to trip that supplies AC power to the distribution lugs if uneven or excessive current is measured at the distribution lugs. It is also connected to the 3-phase door switch and will automatically trip the 3-phase breaker when the door is open and prevents the breaker from being reset while it is open.

GENERATOR

Test resistance of field, stator and exciter windings. Contact **TEREX** for procedures or repair facility recommended by generator manufacturer.

⚠ PROCEDURE FOR TESTING GENERATOR WITH NO OUTPUT

THIS EQUIPMENT USES HIGH VOLTAGE CIRCUITS CAPABLE OF CAUSING SERIOUS INJURY OR DEATH! EXCERCISE EXTREME CAUTION AROUND ANY ELECTRICAL COMPONENT WHEN OPERATING THIS UNIT.

IT IS ESSENTIAL THAT ALL TEST INSTRUMENTS ARE REGULARLY CHECKED FOR SAFETY, AND ANY CONNECTION LEADS, PROBES, OR CLIPS, ARE CHECKED TO ENSURE THAT THEY ARE SUITABLE FOR THE VOLTAGE LEVELS BEING TESTED.

NEVER ATTEMPT TO TEST A "LIVE" GENERATOR UNLESS THERE IS ANOTHER COMPETENT PERSON PRESENT WHO CAN SWITCH OFF THE POWER SUPPLY OR SHUT DOWN THE ENGINE IN AN EMERGENCY.

NEVER EXPOSE "LIVE" CONNECTIONS UNLESS YOU HAVE CREATED A SAFE WORKING AREA AROUND YOU. MAKE SURE YOU HAVE MADE ALL OTHER PERSONS IN THE IMMEDIATE AREA FULLY AWARE OF WHAT YOU ARE DOING.

- When a new generator is not producing voltage, the testing or wiring personnel should first verify that the unit is wired correctly! The stack switch and generator leads should all be checked as well as the breaker and sensing leads. If the unit was not wired correctly and you flashed the generator, you could burn up the unit. (**Do not forget to check the sensing leads!**).

ELECTRICAL TROUBLESHOOTING (Cont.)

PROCEDURE FOR TESTING GENERATOR WITH NO OUTPUT (Cont.)

- After performing the initial checks above, remove the field wires from the voltage regulator (F1 or X is positive and F2 or XX is negative). Connect the battery + to the F1 or X wire and battery - to the F2 or XX wire. Start the engine and check for the rated voltage. **Hooking this up incorrectly will reverse polarity and could damage the voltage regulator and /or generator end.** This check should correct any voltage problems. If your voltage does not come up to the rated voltage, this indicates an internal problem with the generator end. The output should be close to proper voltage. Also, if the unit comes up to voltage, check for even reading across the lines if they are not this would mean you probably have a problem with the wiring of the switch or generator. If the generator voltage reads correctly you know there is not a problem with the generator end. Your problem is more than likely with the voltage regulator. In this case, you should contact the **TEREX** service department.

- If the voltage is uneven between the legs when you apply 12 volts to the field wires you need to recheck your wiring connections. **(If you can not find the problem hard wire the generator!)** After you have the field wire connected start the unit again and check your output voltage. It may still be necessary to flash the fields to restore residual voltage. This needs to be done with the unit off and the field wires removed. **(Do not flash the regulator, flash the field wires)**

- As with any electrical device use extreme caution when working around a running generator it could cost you your life. Observe proper polarity when working with the regulator so you don't break something that is not broken to begin with, and if you are ever in doubt, ask.

INSTALLATION AND ANY WORK PERFORMED ON THIS UNIT SHOULD BE DONE ONLY BY A QUALIFIED ELECTRICIAN.

PROCEDURE FOR CHANGING THE MAGNETIC PICK-UP SENSOR

THIS EQUIPMENT USES HIGH VOLTAGE CIRCUITS CAPABLE OF CAUSING SERIOUS INJURY OR DEATH! EXCERCISE EXTREME CAUTION AROUND ANY ELECTRICAL COMPONENT WHEN OPERATING THIS UNIT.

INSTALLATION AND ANY WORK PERFORMED ON THIS UNIT SHOULD BE DONE ONLY BY A QUALIFIED ELECTRICIAN.

- Make sure generator is turned off and e-stop is engaged before opening control panel.

- Locate the two wires going to the speed controller mounted on the inside of the control pan marked MPU + and MPU -.

- Both wires are isolated in their own shielded cable.

- Once the wires are loose, pull them through the back of the control box until they are completely free from all ty-wraps and wire harnesses.

- Unscrew and remove the old sensor.

- Align the flywheel tooth to the center of the sensor hole.

- Install new sensor until it bottoms out on flywheel tooth and then back it off ¼ turn.

- To insure proper installation, the sensor must

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PROCEDURE FOR CHANGING THE MAGNETIC PICK-UP SENSOR (Cont.)

be checked with a voltage meter. With the engine in a starting sequence check for 2.5 to 3 VAC between the red and black wire. Adjust the sensor in or out to obtain the correct voltage.

- Once the voltage is correct, reinstall the shielded cable through the control box opening and reattach the wire leads to the speed controller. Also, secure the new cable through the housing with ty-wraps where needed.

If any further adjustment is needed to the voltage of the generator please call **Terex** at 1-800-433-3026 for assistance.

PROCEDURE FOR CHANGING THE VOLTAGE POTENTIOMETER

THIS EQUIPMENT USES HIGH VOLTAGE CIRCUITS CAPABLE OF CAUSING SERIOUS INJURY OR DEATH! EXCERCISE EXTREME CAUTION AROUND ANY ELECTRICAL COMPONENT WHEN OPERATING THIS UNIT.

INSTALLATION AND ANY WORK PERFORMED ON THIS UNIT SHOULD BE DONE ONLY BY A QUALIFIED ELECTRICIAN.

- Make sure generator is turned off and e-stop is engaged before opening control panel.

- Locate the two wires going to the back of the potentiometer. Both wires will be white with a red stripe.
- Both wires have been spliced into harness wires and should be cut so that the splice is taken out. It is better to have as few splices as possible and you will be replacing the splice you cut out.

ELECTRICAL TROUBLESHOOTING (Cont.)

- Once the wires are loose, go to the front of the control panel and loosen the lock nut holding the potentiometer.

- Put the new potentiometer in its place and retighten lock nut.

- Reattach new wires to the same wires and in the same configuration as the ones that were cut loose in step 3.

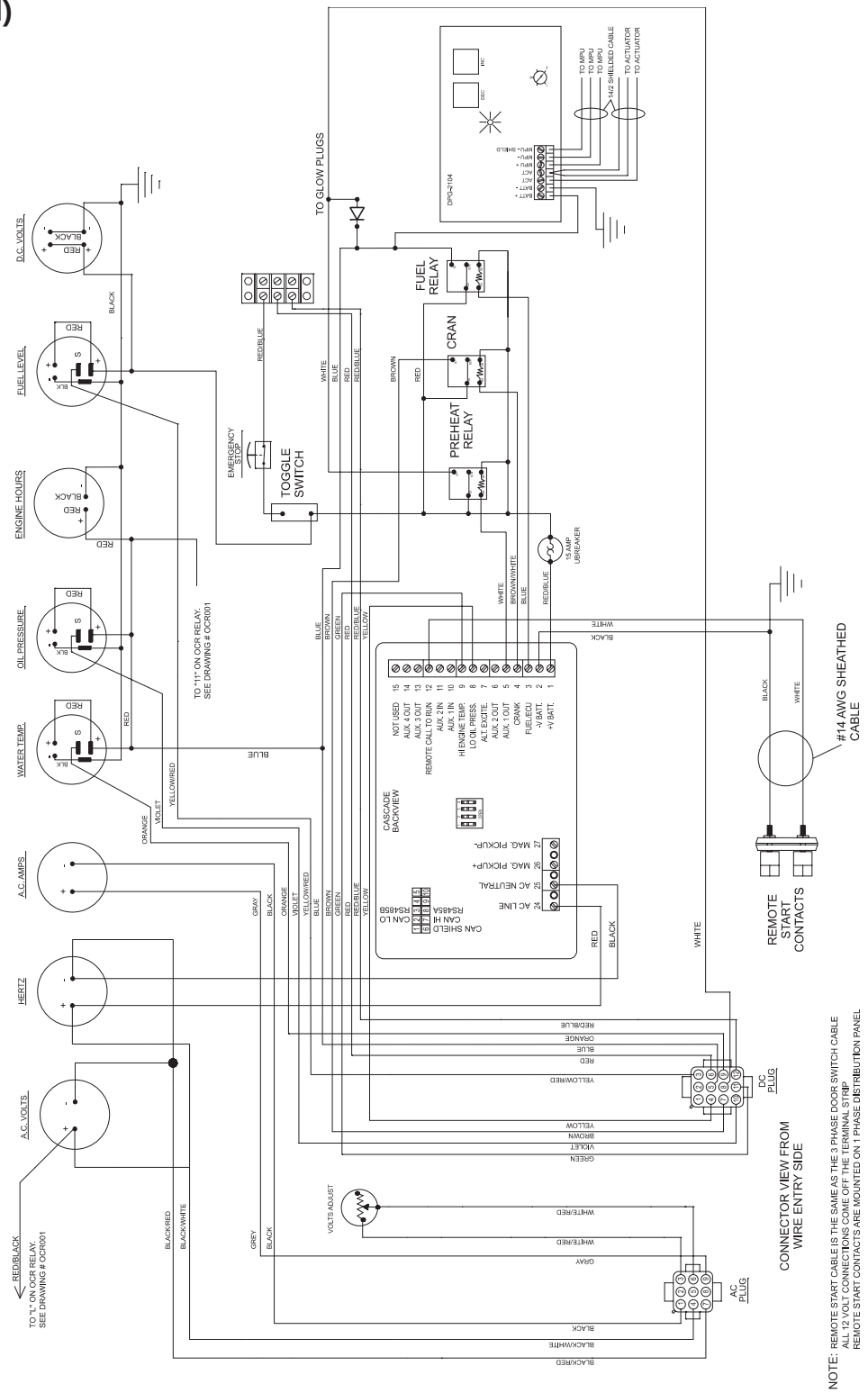
- After completing the installation of the new potentiometer go back and check all connections to make sure everything is tight and that no connections are loose, this includes all other wiring on the back of the control panel and on the inside of the control box.

- You should now be able to restart the generator and check for proper operation.

If any further adjustment is needed to the voltage of the generator please call **TEREX** at 1-800-433-3026 for assistance.

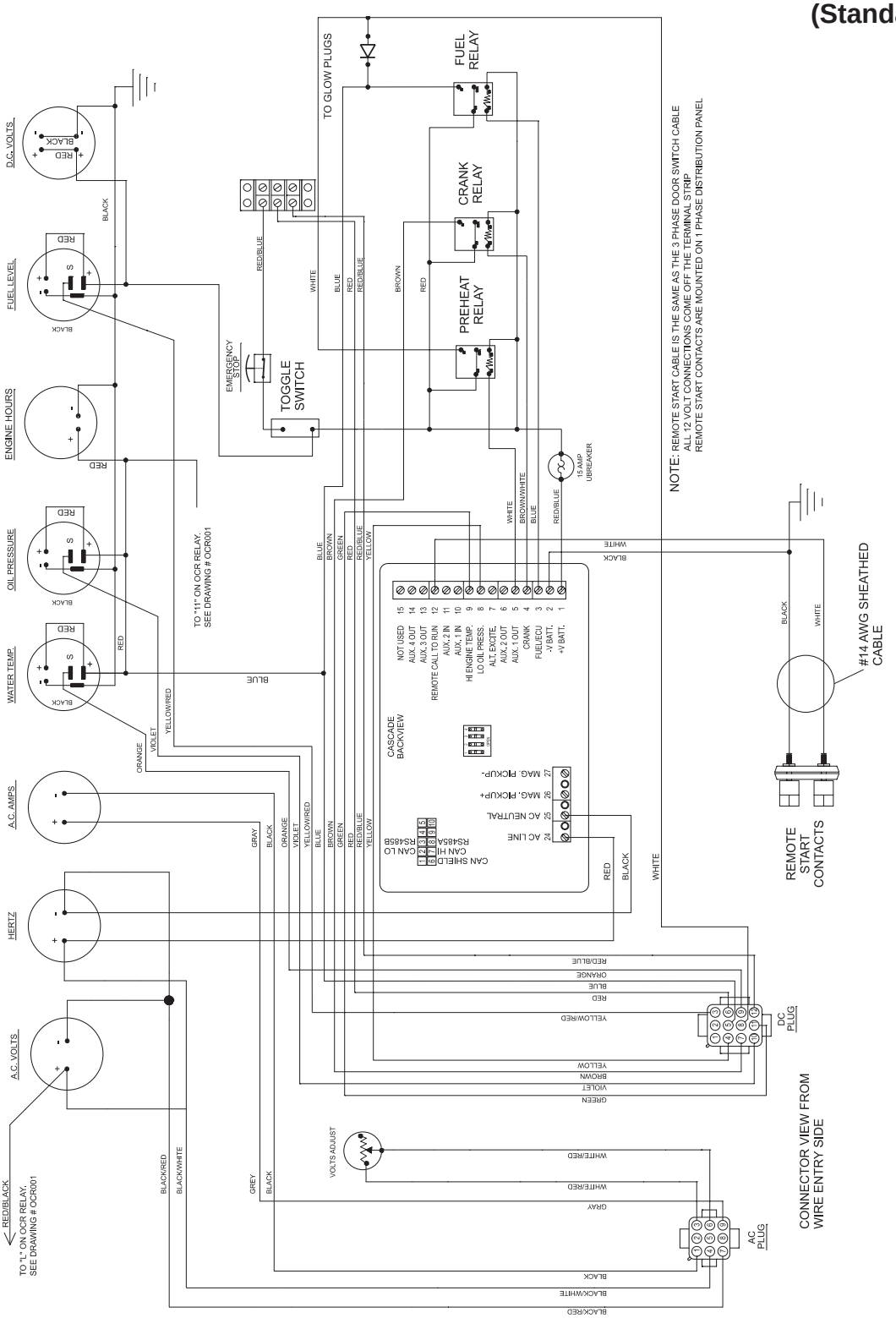
Control Panel Wiring for Cascade w/Electronic Governor Drawing #ES1000000 (Optional)

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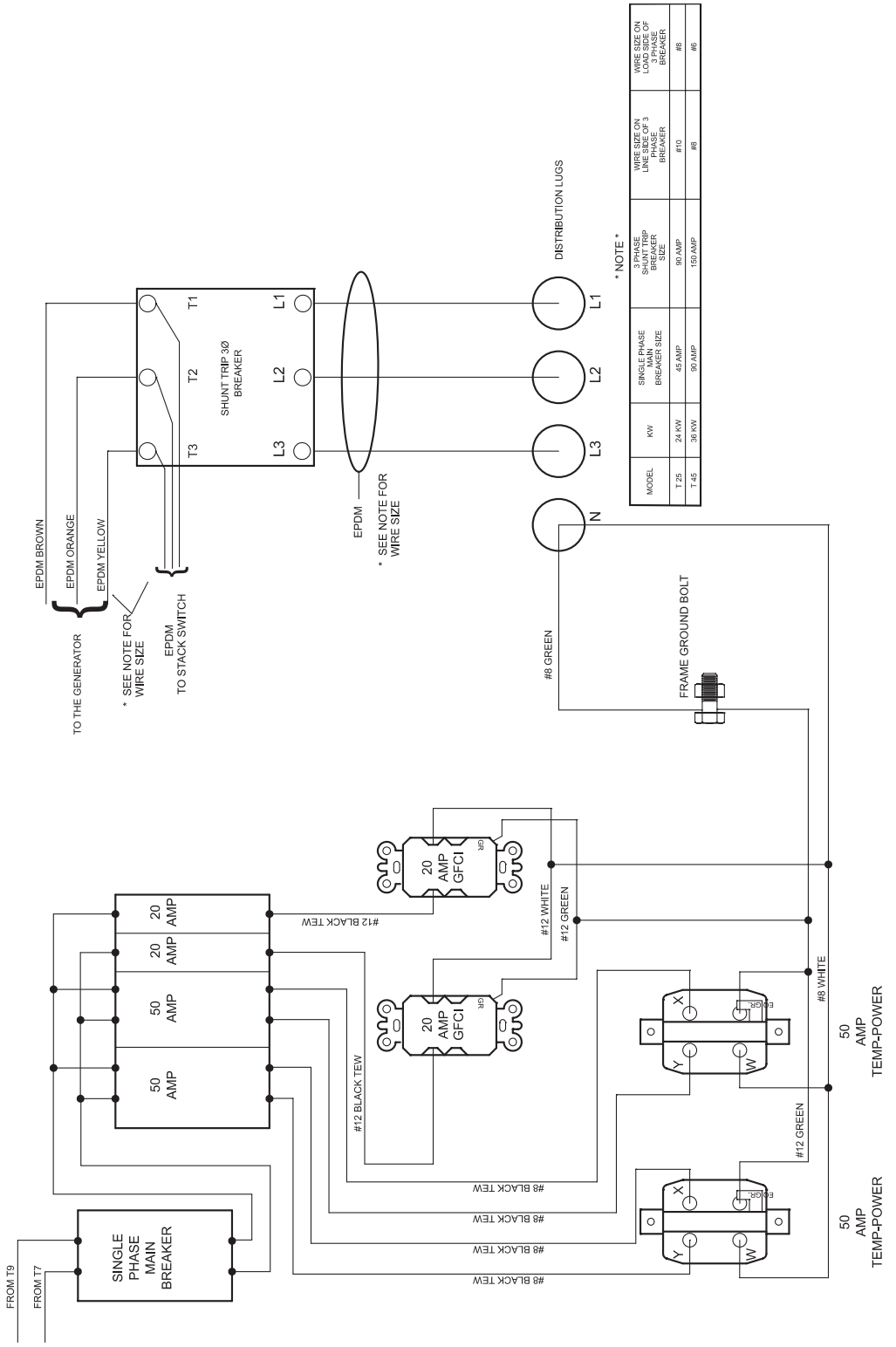
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Control Panel Wiring for Murphy Cascade Controller Drawing #ES1000001 (Standard)



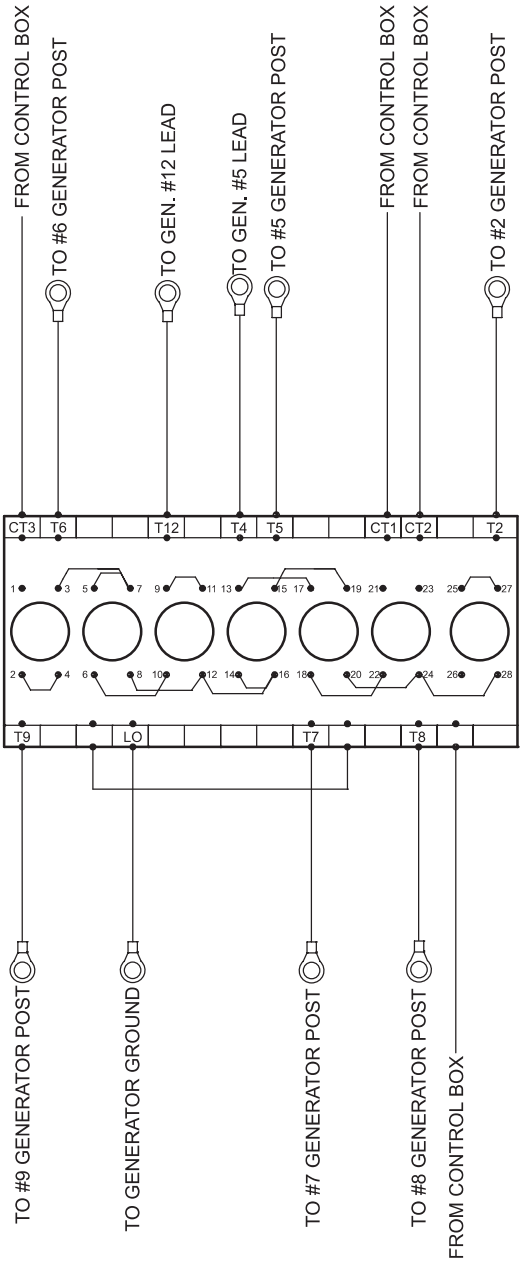
Distribution Panel Wiring
for "C" Series Single PhaseControl
Drawing #ES1000003

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Three Position Stack Switch Wiring
Drawing #ES1000005

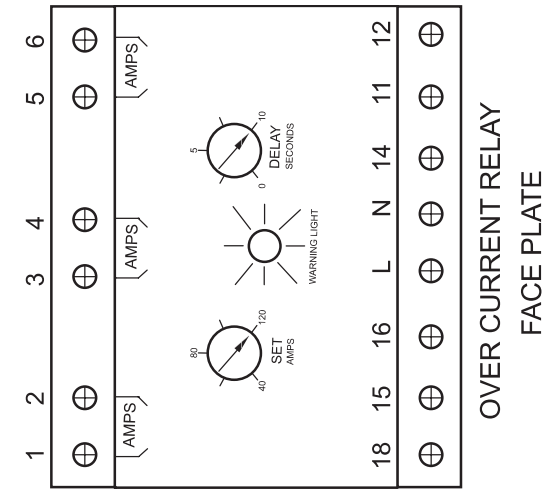


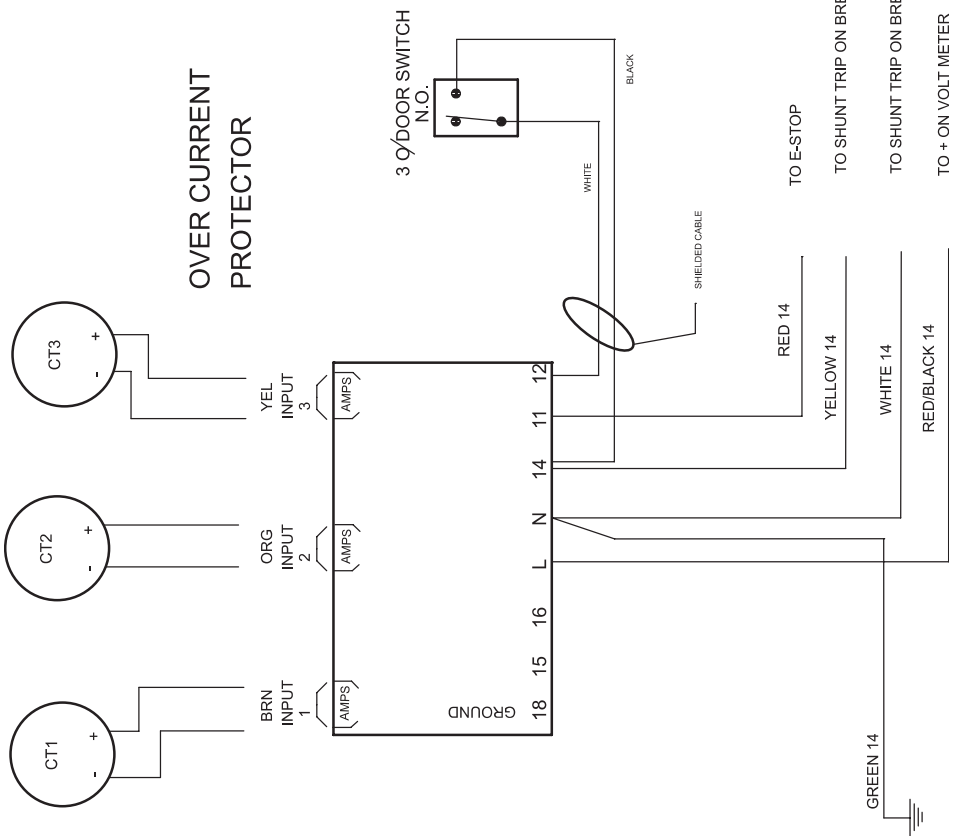
GENERATOR	STACK SWITCH #	WIRE SIZE
T25I	C42201102	10 GA. EPDM
T45I	C42202402	8 GA. EPDM

NOTE: FOR REFERENCE SEE DRAWINGS #ES100007 & ES100008

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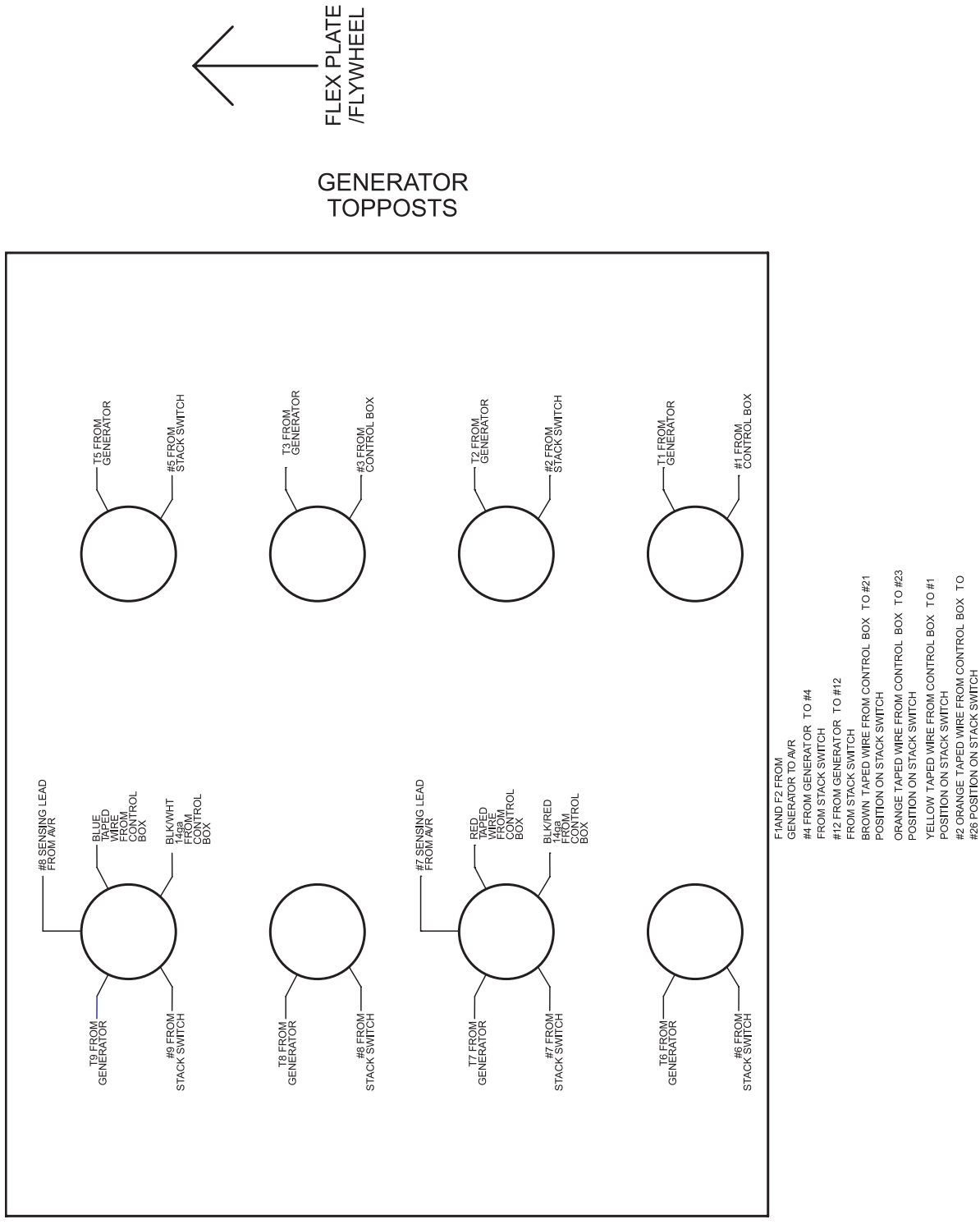
Overcurrent Relay Wiring
Drawing #ES1000006





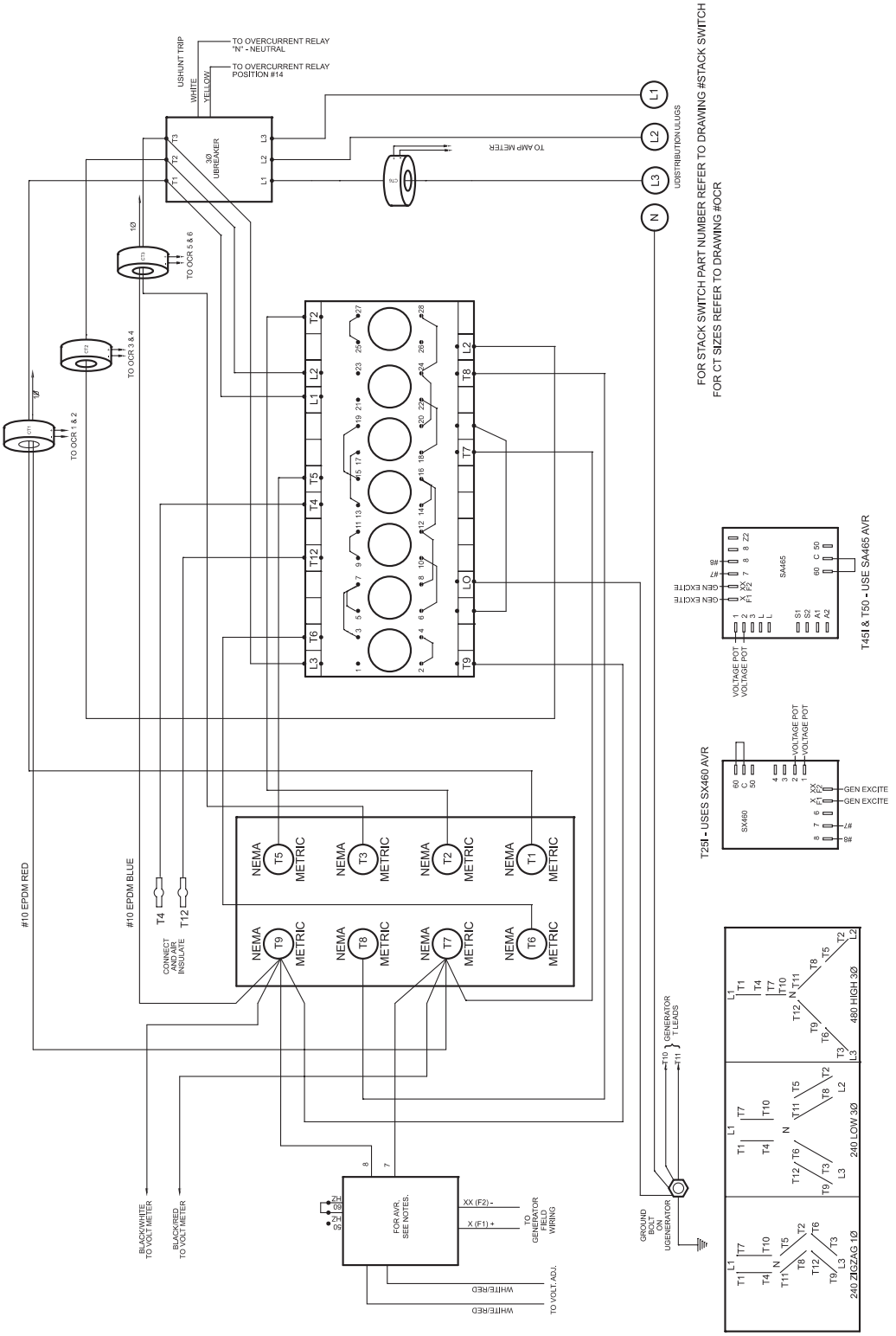
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Generator Wiring Breakdown
Drawing #ES1000007



Standard Generator Wiring for "C" Series Drawing #ES1000008

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T25I / T45I SPECIFICATIONS AND DIMENSIONS

MODEL		T25I	T45I
POWER CAPABILITY-PRIME			
kVA (kilovolt-amps)		25	45
kW		20	36
3 Phase Amp Ratings			
	208V	69	125
	240V	60	108
	480V	30	54
POWER CAPABILITY-STANDBY			
kVA (kilovolt-amps)		30	50
kW (kilowatts)		24	40
3 Phase Amp Ratings	208V	83	139
	240V	72	120
	480V	36	60
VOLTAGE			
3 Phase 208, 220, 240, 416, 440, 480		Standard	Standard
600 Volt		Optional	Optional
1 Phase 120, 127, 139, 240, 254, 277		Standard	Standard
Max Motor Starting1	Hp	12	27
	kW	9	20
SKVA		70	165
DIESEL ENGINE			
Manufacturer		Isuzu	Isuzu
Model		4LE1PV02	4JG1TPV
Cylinder		4	4
Air Intake (aspiration)		Natural	Turbo
Cooling System		Std Rad	Std Rad
Fuel Capacity (gal)		64	64
Run Time (75% load)		53	29
Fuel Consumption, Prime Power (gal per hr)	100% load	1.5	2.8
	75% load	1.1	2.2
	50% load	0.8	1.7
	25% load	0.4	1.2
dBA		64	64
Controller Type		Analog/Digital	Analog/Digital
Start/Stop Controller		Cascade	Cascade
12V Battery (CCA)		750	750

T25I / T45I SPECIFICATIONS AND DIMENSIONS (Cont.)

MODEL		T25I	T45I
GENERATOR			
Brushless, 4 pole, Synchronous, Single-bearing		Standard	Standard
1,800 rpm, Class H Insulation Generator		Standard	Standard
High wye, Low wye, Zig-zag Voltage Selector		Standard	Standard
3 Phase Voltage: 208, 220, 240,416, 440, 480		Standard	Standard
600 Volt		Optional	Optional
1Phase Voltage: 120, 127, 139, 240, 254, 277		Standard	Standard
Convenience Receptacles:		Standard	Standard
2 - 20A GFCI Duplex Receptacles		Standard	Standard
2 - 50A Tempowers		Standard	Standard
AVR Voltage Regulation		Standard	Standard
Mechanical Standard (5%) Speed Control (governor)		Standard	Standard
Murphy Cascade Start/Stop Controller on All Engines		Standard	Standard
TRAILER			
No Brakes		Standard	Standard
HydraulicBrakes		Optional	Optional
Electric Brakes		Optional	Optional
Pintle Rng, 3 inch		Standard	Standard
Coupler Hitch, 2 inch		Optional	Optional
Coupler Hitch, 2 5/16 inch		Optional	Optional
1 Maximum motor size is based on 35% voltage dip at			
480V AC 3 phase 60Hz with a code G motor			
SKID MOUNT			
DIM (L x W x H - in)		84x39x51	84x39x51
Weight Dry (lbs)		1,900	2,725
Weight Full (lbs)		2,354	3,173
TRAILER MOUNT			
Dim (L x W x H)		137x66x68	137x66x68
Weight Dry (lbs)		2,375	3,200
Weight Full (lbs)		2,829	3,648

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REV B

TORQUE SPECIFICATIONS

FASTENER SIZE UNF & UNC	STAINLESS STEEL*	STAINLESS STEEL* NYLOK NUT	SAE GRADE 5 PLATED (METRIC 8.8)	SAE GRADE 5 PLATED NYLOK NUT	SAE GRADE 8 PLATED (METRIC 10.9)	SAE GRADE 8 PLATED NYLOK NUT
#6	(10-12)	(8.5-10)	(14-16)			
#8	(20-22)	(17-19)	(25-28)			
#10	(26-32)	(22-27)	(40-45)			
1/4"	(75-94)	(64-80)	7-9		12-14	
5/16"	12-Nov	14-Dec	15-17		23-26	
3/8"	20-22	22-24	28-34		45-50	
7/16"	31-33	32-35	40-45		70-75	
1/2"	43-45	45-50	75-85	70-80	100-110	95-105
9/16"	57-63	60-65	80-100	75-95	145-160	135-150
5/8"	92-104	100-105	130-170	125-165	175-205	165-195
3/4"	128-135	140-150	220-240	205-225	380-420	365-405
4mm	(22-26)	(19-22)	(23-27)			
6mm	(45-50)	(38-43)	(72-78)			
8mm	12-Nov	9-10	14-16			
10mm	18-20	15-17	45-50	40-45	70-75	
12mm	42-44	36-38	56-60	50-55	95-105	
16mm			140-148			
18mm			185-200			
20mm			280-290			

GENERATOR TORQUE SPECIFICATIONS

Generator	**FT*LB**
Flex Plate to Flywheel	12-15
Generator Case to Bellhousing	60
1/2" Socket Head Cap Screws for Lifting Channel	126
1/2" Hex Head Screws for Lifting Channel	120
Genset Isolators	33

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REV A

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TEREX

SERVICE PARTS FAX ORDER FORM

FAX TO: (800) 633-5534 OR TOLL FREE: 800-433-3026

Please fill out completely

Date _____ Account Number _____

Your Name _____ **Your Fax Number** _____

_____ Your Phone Number _____

Bill To _____ Ship To _____

_____ _____

_____ _____

_____ _____

Purchase Order Number _____ Ship Via _____

Model(s) _____ **Serial No.(s)** _____

Optional Equipment _____

Part Number	Description	Quantity	Price

All backordered parts will be shipped when available via the same ship method as the original order unless noted below:

- o Ship complete order only - no backorders
- o Ship all available parts and contact customer on disposition of backordered parts
- o Other (please specify)

_____

_____

FOR TEREX USE ONLY

Order Number _____ Origin Code _____ Comments _____

Date Scheduled _____ Ship Condition _____ _____

Order Total _____ Terms Code _____ _____

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June 2006
REV A

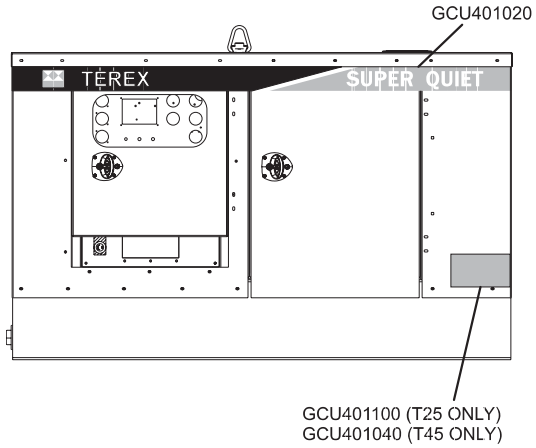
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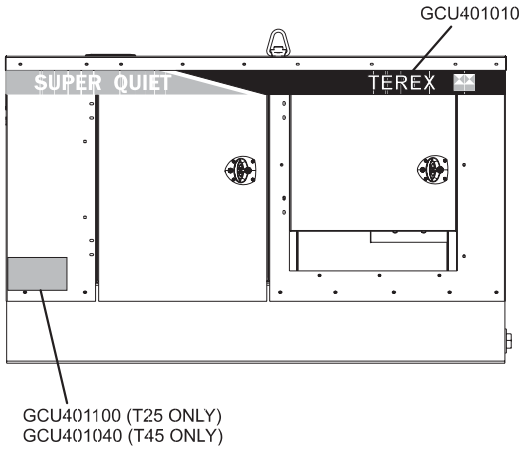
June 2006
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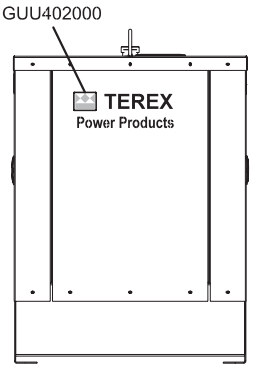
PARTS CATALOG SECTION

June 2006
REV A

CABINET DECALS



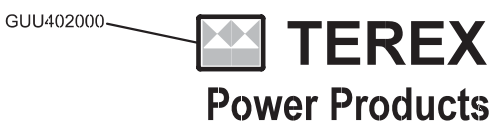




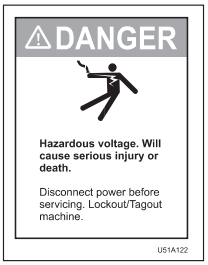








SAFETY DECALS



U51A122



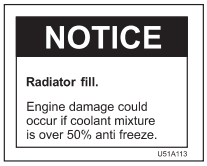
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R51A101



U51A112



U51A113



U51A304



U51A102



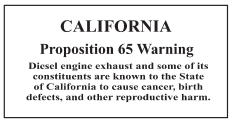
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853070



U51A305



52100100



U51A110



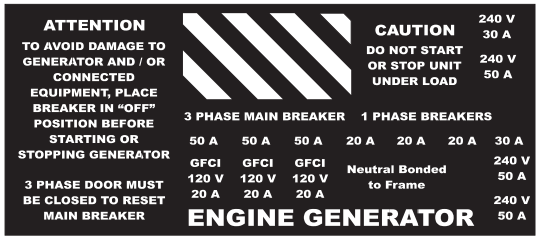
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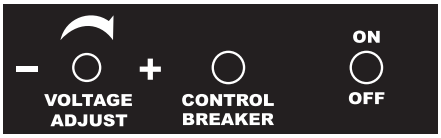
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850130



853813*

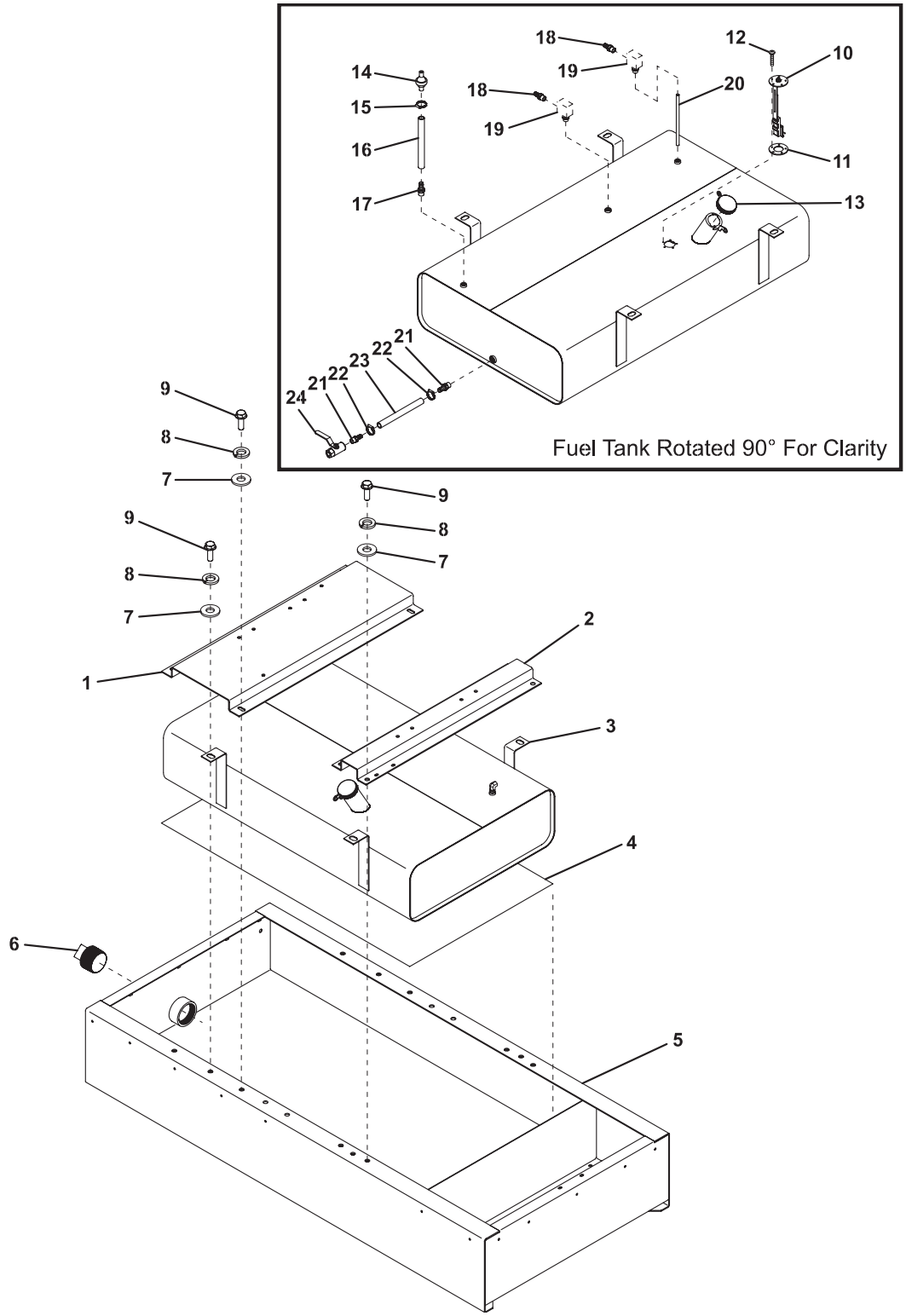


853838

* THIS SHEET CONTAINS DECALS FOR THE ENTIRE CONTROL PANEL ASSEMBLY. INDIVIDUAL DECALS ARE NOT AVAILABLE FOR PURCHASE.

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FIGURE 1 - BASE W/FUEL TANK

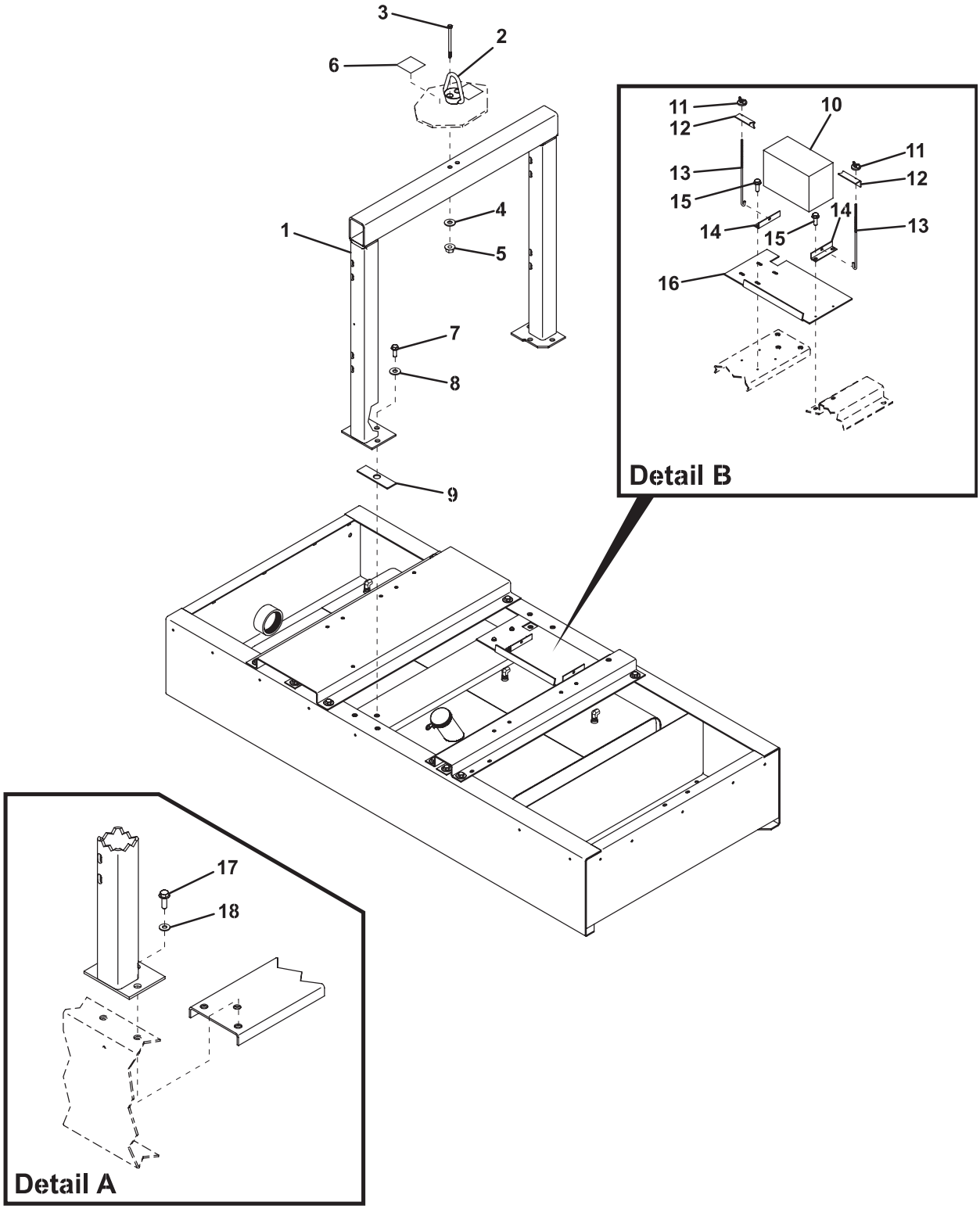


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REV A

ITEM #	PART #	DESCRIPTION	QTY.
1	GCI120030	HAT CHANNEL, REAR	1
2	GCU120010	HAT CHANNEL, ENGINE	1
3	GCU100000	TANK, FUEL, 64 GAL	1
4	720420	RUBBER SHEET, 1/8 BLK (12 SQ. FT.)	AR
5	GCU110000	BASE, CONTAINMENT	1
6	C90900601	PLUG, PIPE, 3" SQUARE HEAD	1
7	990210	WASHER, FLAT 1/2	18
8	991650	WASHER, LOCK 1/2	18
9	990810	SCREW, 1/2-13NCX1-1/2	
10	C43200601	SENDER, FUEL LEVEL	1
11		GASKET (INCLUDED WITH ITEM #10)	1
12		SCREW (INCLUDED WITH ITEM #10)	5
13	831804	FUEL CAP	1
14	895371	VALVE, VACCUUM RELIEF	1
15	792750	CLAMP 7/16 TO 25/32	2
16	890790	HOSE FUEL, 1/4X1/2 200# (1 FT.)	AR
17	C91001300	FITTING BARB, 3/8 NPT	1
18	C90200600	BARB 3/8 X1/4 NPT	2
19	C90200400	FITTING, PICKUP&RETURN	2
20	C91100300	NYLON TUBING (1 FT.)	AR
21	C90200900	BARB, 3/4 X1/2 NPT	3
22	792750	CLAMP, 7/16 TO 25/32	2
23	897910	HOSE,OIL, 3/4"	AR
24	C90800100	VALVE, BALL 1/2	1

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REV A

FIGURE 2 - BASE W/LIFTING EYE & BATTERY

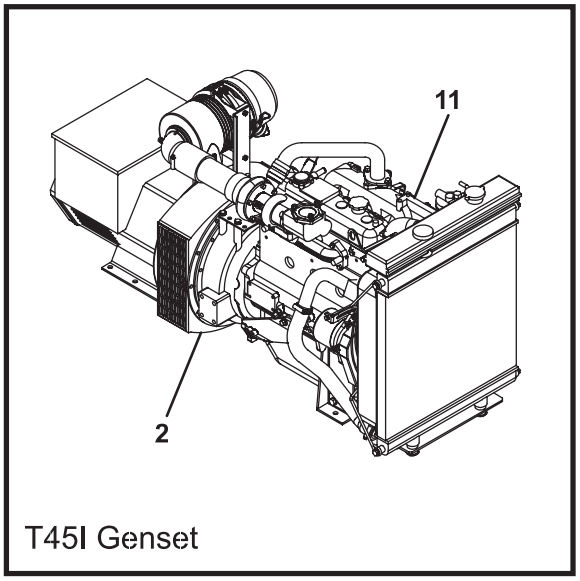


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REV A

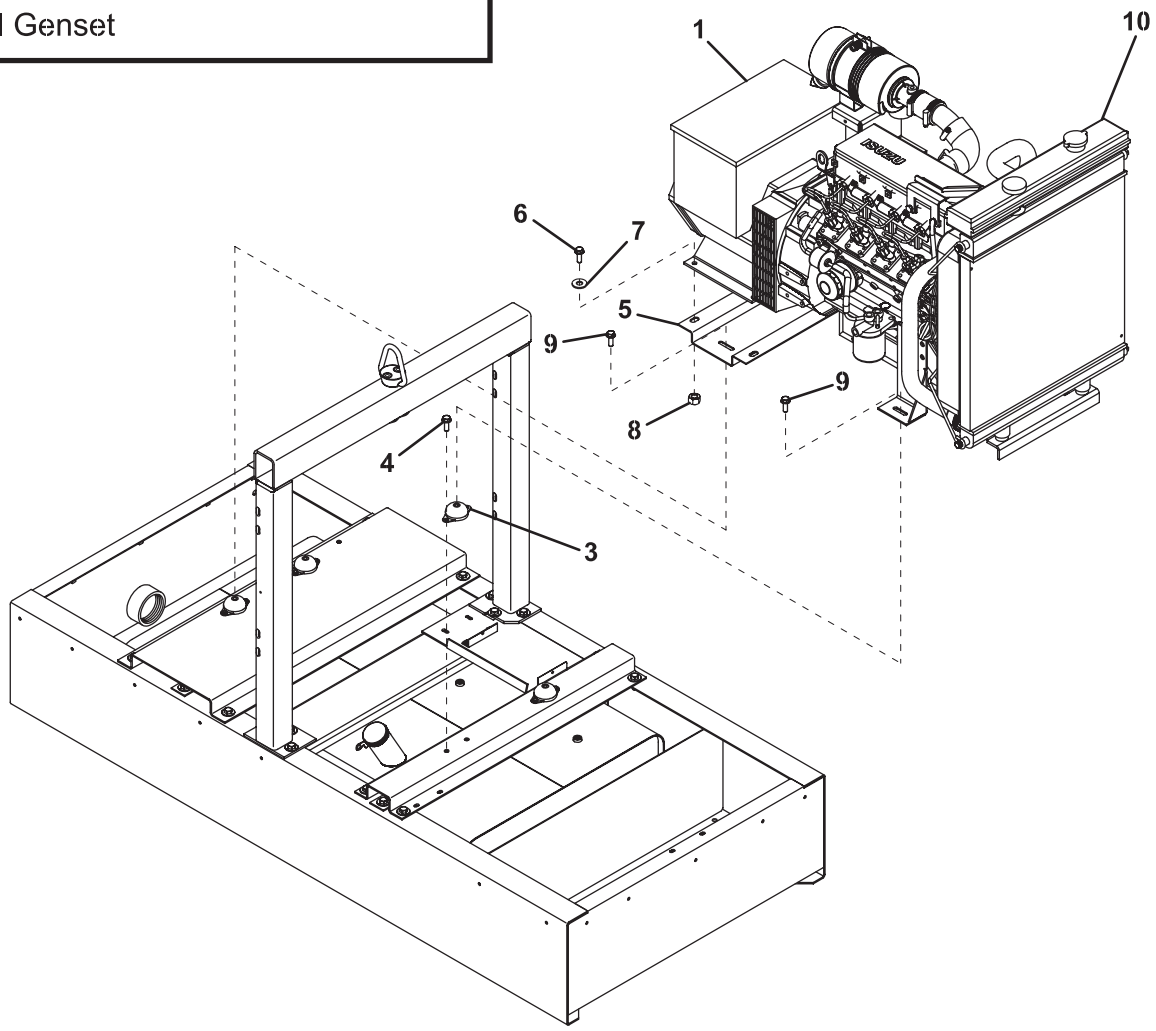
ITEM#	PART#	DESCRIPTION	QTY.
1	GCU500000	LIFTING ASSEMBLY	1
2	C82301010	LIFTING EYE 5000 LBS	1
3	C82300850	BOLT, 1/2 -20 X 6 SOCKETHEAD CAP	2
4	990210	WASHER FLAT 1/2	
5	990200	NUT, LOCK NYLON INSERT 1/2-13NC	4
6	CY59A111	PLASTIC 1/8 X 3 X 4	2
7	994600	SCREW 1/2-13NC X 1-1/2	6
8	990210	WASHER FLAT 1/2	18
9	GCU500042	LIFTING CHAN SPACER	1
10	261252	BATTERY, WET 12V GRP34/750CCA	1
11		NUT, WING	2
12	CU22A252	ANGLE BATTERY	1
13	C33700800	HOOK BATTERY HOLD DN	1
14	GCU121010	BATTERY TIE DOWN	2
15	995810	SCREW 1/4-20NC X 5/8 HWH	4
16	GCU121000	TRAY BATTERY	1
17	994600	SCREW 1/2-13NC X 1-1/2	6
18	991650	WASHER LOCK 1/2	18

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REV A

FIGURE 3 - GENSET



T45I Genset

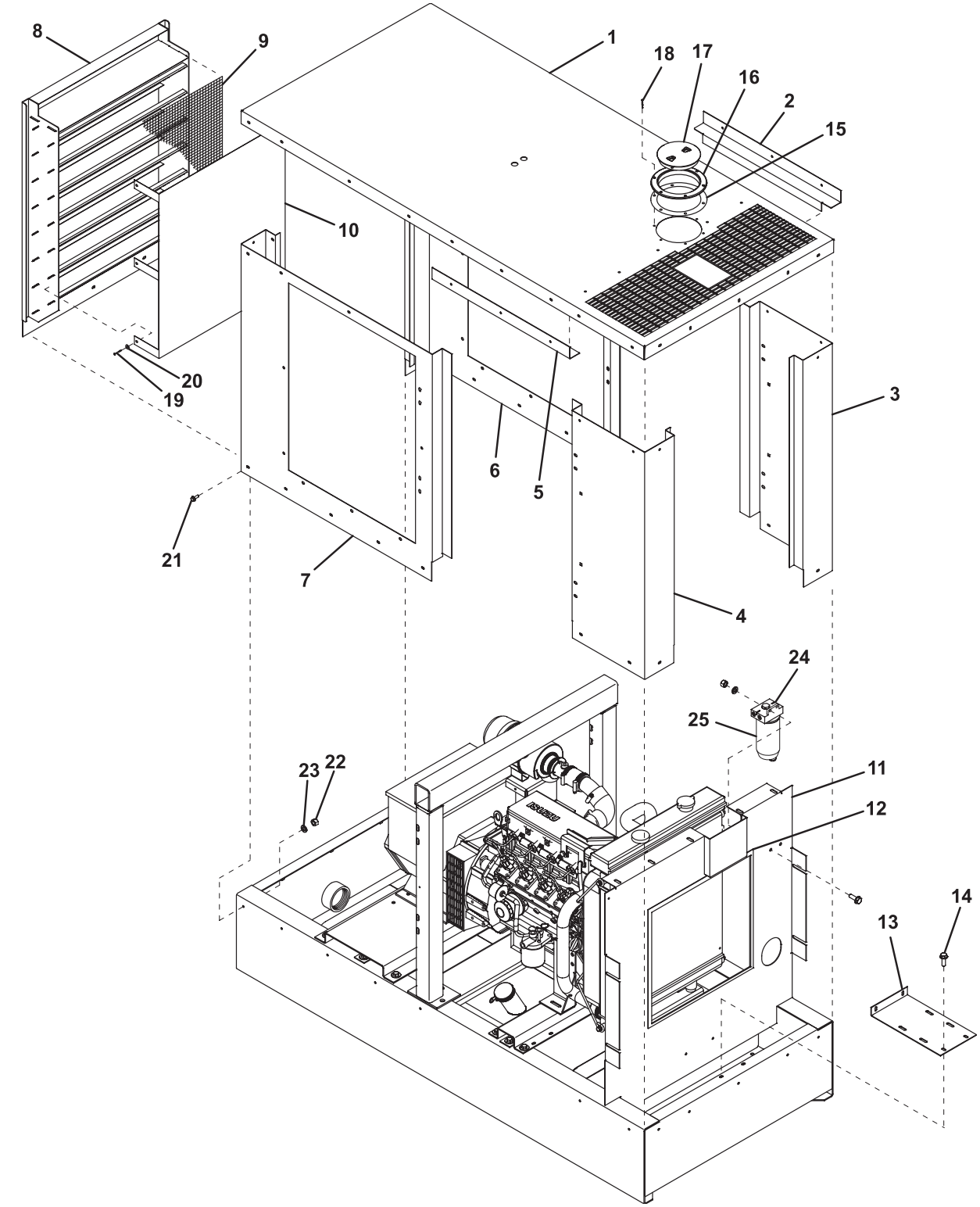


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REV B

ITEM #	PART #	DESCRIPTION	QTY.
1	630975	GENERATOR, NEWAGE, 20KW-T25I	1
2	630944	GENERATOR, NEWAGE, 40KW-T45I	1
3	C33602400	MOUNT, VIBRATION FAIL	4
4	981635	SCREW, 1/2-13NCX1	12
5	CC32T010	HAT CHANNEL, NEWAGE, T25I	1
5	GCI120051	HAT CHANNEL, NEWAGE, T45I	1
6	981660	SCREW, 1/2-13NCX1-1/2	4
7	990210	WASHER, FLAT 1/2	18
8	990200	NUT, LOCK-NYLON INSERT	4
9	51601460	SCREW, FLANGE 3/8-16 X 1	2
10	732112PP	ENGINE, ISUZU, 20KW, 4LE1PV02,POWER PAK-508-T25I	1
11	732114PP	ENGINE, ISUZU,30-40KW 4JG1TPV,POWER PACK-503-T45I	1
12	836427	RECTIFIER SERVICE KIT	1
13	830001	BCI GENERATOR OPERATION MANUAL	1

June 2006
REV A

FIGURE 4 - CABINET ASSEMBLY

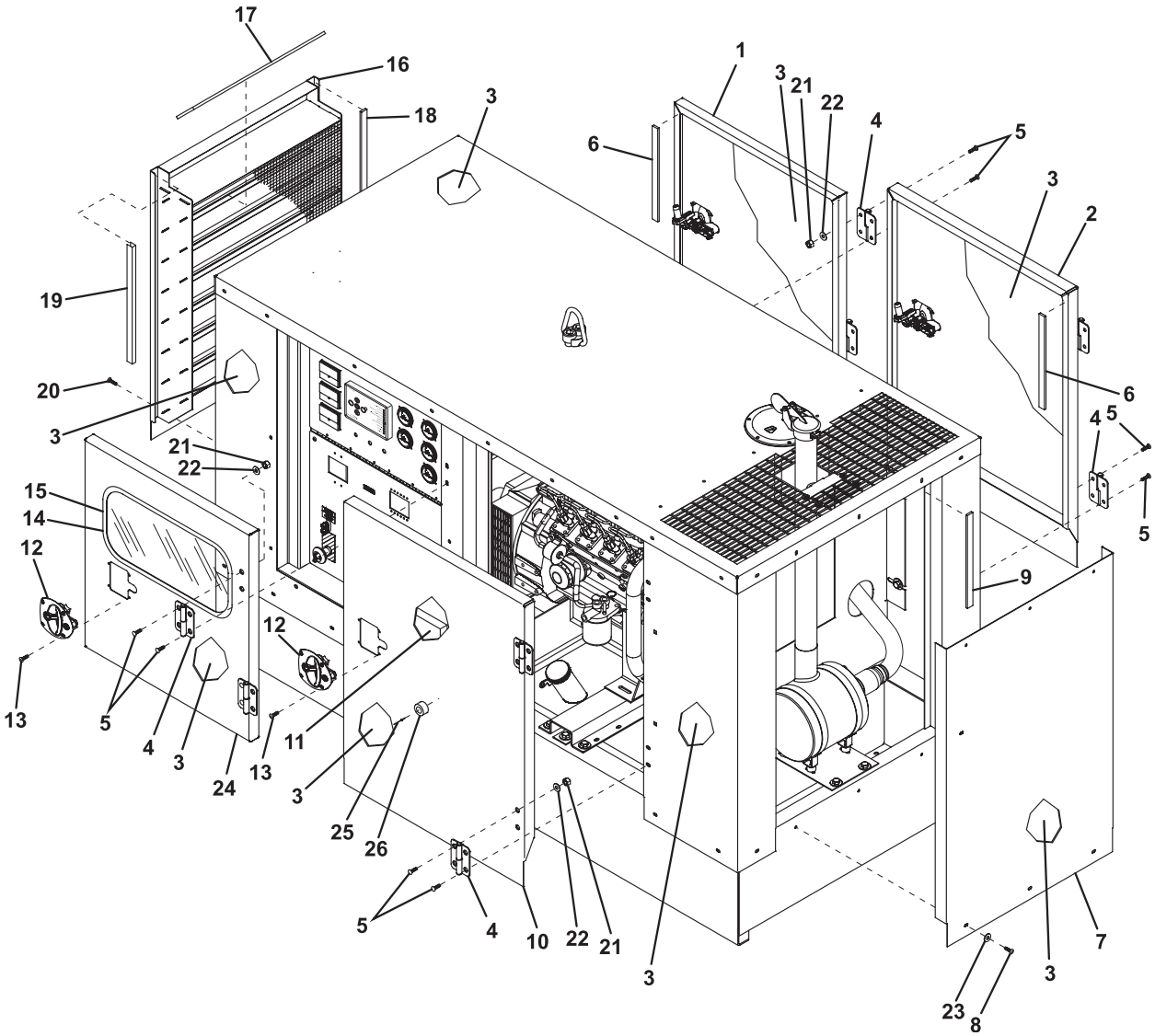


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REV A

ITEM #	PART #	DESCRIPTION	QTY.
1	GCU460000	HOUSING, TOP PANEL	1
2	GCU470001	HOUSING, JAMB DOOR	2
3	GCU420021	HOUSING, FRONT STREET	1
4	GCU420011	HOUSING, FRONT CURB	1
5	GCU470001	HOUSING, JAMB DOOR	2
6	GCU420041	HOUSING, DISTRIBUTION PANEL	1
7	GCU420031	HOUSING, CONTROL PANEL	1
8	GCU480000	HOUSING, REAR LOUVER	1
9	GCU480010	GUARD, LOUVER MESH	1
10	GCU480100	BAFFLE, LOUVER	1
11	GCI491001	BULKHEAD, T-25I	1
11	GCI490001	BULKHEAD, T-45I	1
12	GUU401100	SEAL, TRIMLOCK 7/16	AR
13	GCU110060	MUFFLER, FRONT MOUNT	1
14	C54200601	SCREW, FLANGE 5/16 -18	8
15	720440	WEATHERSTRIP ADHESIVE	AR
16	669174	PLATE DECK SCREW-OUT,THREADED RING	1
17	669174	PLATE DECK SCREW-OUT	1
18	990670	RIVET POP 3/16 X 1/2	6
19	C54400200	SCREW, TEK #10 X 3/4	4
20	994490	WASHER, FLAT SNUBBING	12
21	993422	SCREW, FLANGE 1/4-20 X .75, SS	64
22	990150	NUT, LOCK NYLON, 1/4-20, GR2	40
23	C71014	WASHER, FLAT. 11/16" O.D.	84
24	C33200500	FILTER, FUEL, WATER SEPARATOR, COMPLETE	1
25	CR25-P	WATER SEPARATOR ELEMENT ONLY	1

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FIGURE 5 - CABINET ASSEMBLY W/DOORS

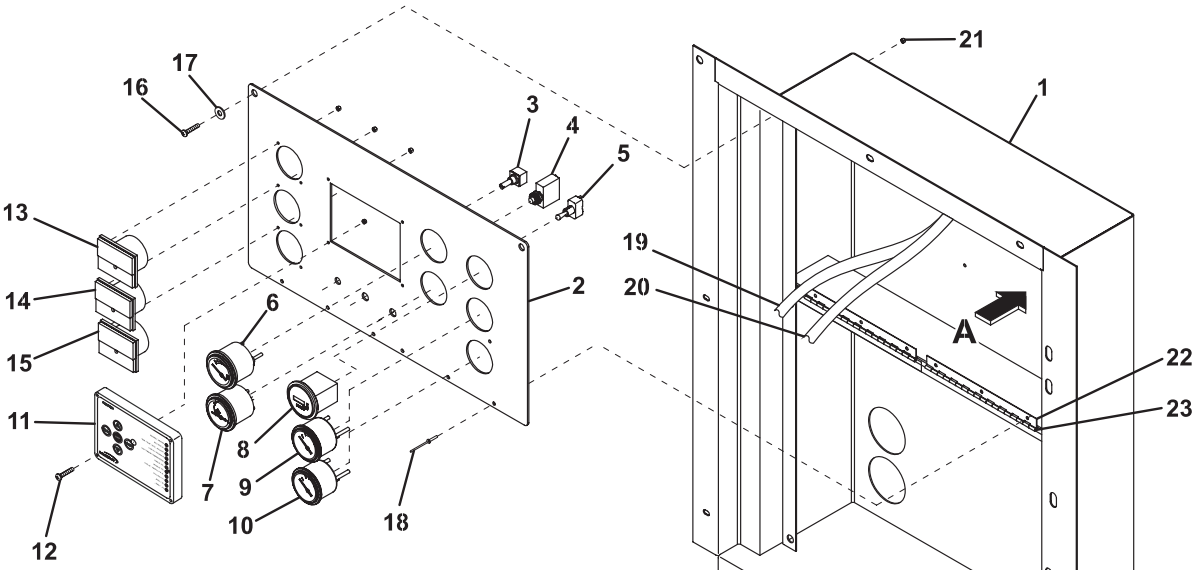


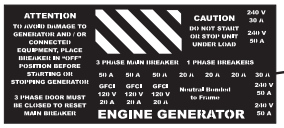
June 2006
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ITEM #	PART #	DESCRIPTION	QTY.
1	GCU430000	HOUSING, DISTRIBUTION DOOR	1
2	GCU430020	HOUSING, ACCESS DOOR	1
3	C71100500	FOAM BLACK URETHANE	AR
4	794891	HINGE, LIFT-OFF STEEL	4
5	C21353	BOLT, CARRIAGE 3/8-16X3/4 Z KEG	32
6	C73000100	TRIM LOCK 1/4	AR
7	GCU450000	HOUSING, FRONT PANEL	1
8	993422	SCREW, FLANGE 1/4-20X.75	5
9	C72100400	WEATHER STRIP 3/8X3/4	AR
10	GCU430030	HOUSING, ACCESS DOOR	1
11	C53200100	LITERATURE BOX	1
12	C51101000	LATCH	4
13	992040	RIVET, POP 3/16X.602	10
14	CU54T021	WINDOW, CONTROL DOOR	1
15	C74100100	GASKET, WINDOW CONTROL DR	AR
16	GCU480000	HOUSING, REAR LOUVER	1
17	C71100200	FOAM, BLACK URETHANE 1/2	AR
18	680465	EDGE STRIP , SBM RUBBER	AR
19	GUU401100	TRIMLOCK SEAL 7/16	AR
20	993422	SCREW, FLANGE 1/4-20X.75	64
21	990170	NUT, LOCK NYLON INSERT,3/8-16NC GR 2 ZPN BIN	32
22	981070	WASHER, FLAT 5/16	32
23	C71014	WASHER, FLAT,11/16" OD	32
24	GCU430010	HOUSING, CONTROL DOOR	1
25	41135000	POP RIVET	2
26	51400200	BUMPER	2

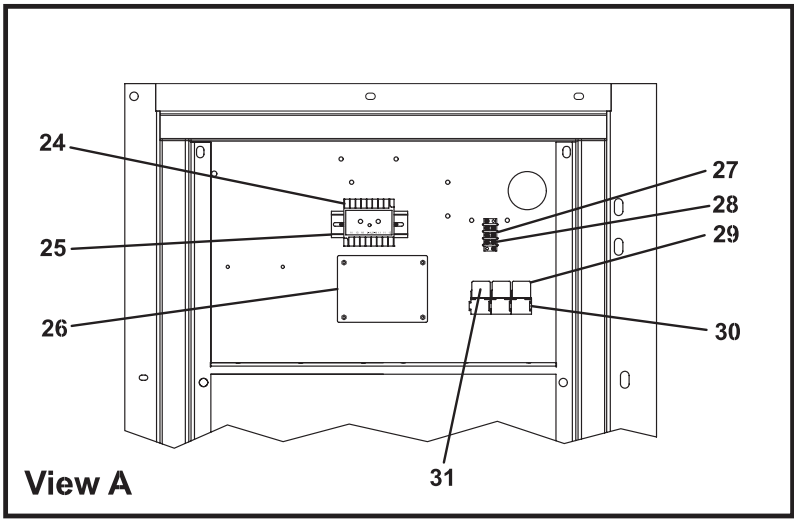
June 2006
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FIGURE 6 - CONTROL PANEL ASSEMBLY- UPPER







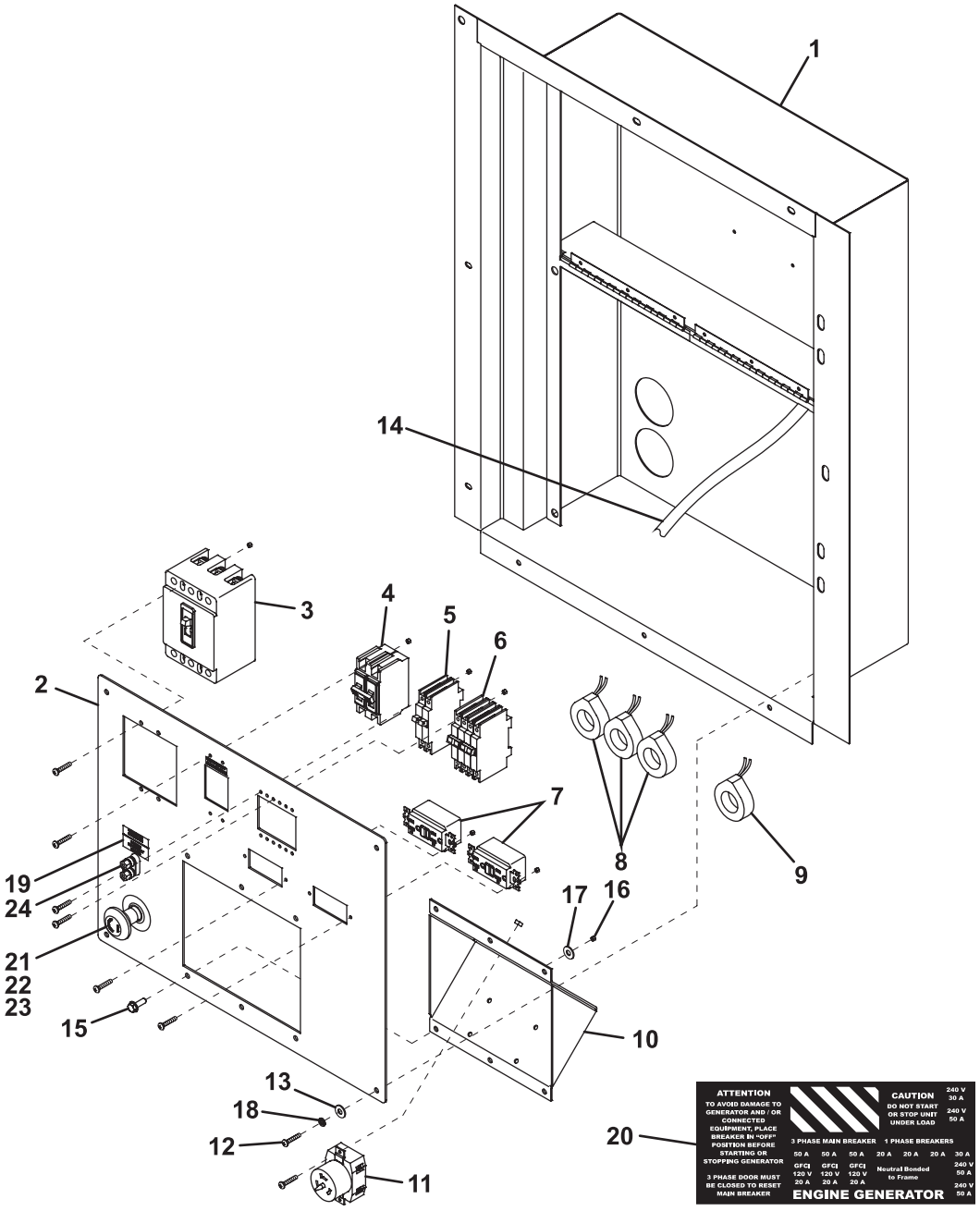


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ITEM #	PART #	DESCRIPTION	QTY.
1	GCU320000	CONTROL PAN ASSY	1
2	GCU300002	CONTROL PANEL	1
3	C42200500	POTENTIOMETER. VOLTAGE	1
4	682070	BREAKER, MINI 1P 15A	1
5	C42208400	SWITCH, TOGGLE SINGLE	1
6	C43100800	GAUGE, DC VOLT	1
7	C43200400	GAUGE, OIL PRESSURE	1
8	260360	HOURMETER, 12V DC	1
9	C43200300	GAUGE, WATER TEMP 12V	1
10	C43200600	GAUGE, FUEL W/BLACK	1
11	261341	CASCADE CONTROLLER	1
12		INCLUDED WITH ITEM 11	4
13	C43100600	METER, VOLT DUAL	1
14	C43100400	METER, FREQUENCY	1
15	C43100500	METER, AMP 0-100 W/	1
16	R980195	SCREW, 1/4-20NCX3/4	2
17	990340	WASHER, FLAT 1/4	8
18	992040	RIVET, POP 3/16X.602	10
19	CB45A112	HARNESS, AC CTRL/PNL	1
20	CU45A100	HARNESS, CTRL UNIVERSAL	1
21	C51600800	NUT, CLIP 1/4 -20X3/4	4
22	GCU320100	PLASTIC, ABS 1/8 X 10.5 X 22.5	1
23	C51200201	HINGE, PIANO 9 SS	2
24	C42401700	RELAY, OVER CURRENT	1
25	686735	RAIL, RELAY MOUNTING	AR
26	SA465 OR SX460	AVR - CHECK UNIT BEFORE ORDERING PART	1
27	C42404000	TERMINAL STRIP, 6 POS	1
28	R660115	JUMPER, TERMINAL STRIP	2
29	CDWV40150	RELAY, 50A BOSCH	3
30	CDWV40151	RELAY, BASE 50A BOSCH	3
31	CDWV40152	RELAY, PIN	12
32	853813	DECAL, KIT RECEPTACLES AND BREAKERS	1
33	853838	DECAL, KIT CONTROL PANEL CASCADE	1

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FIGURE 7 - CONTROL PANEL ASSEMBLY - LOWER

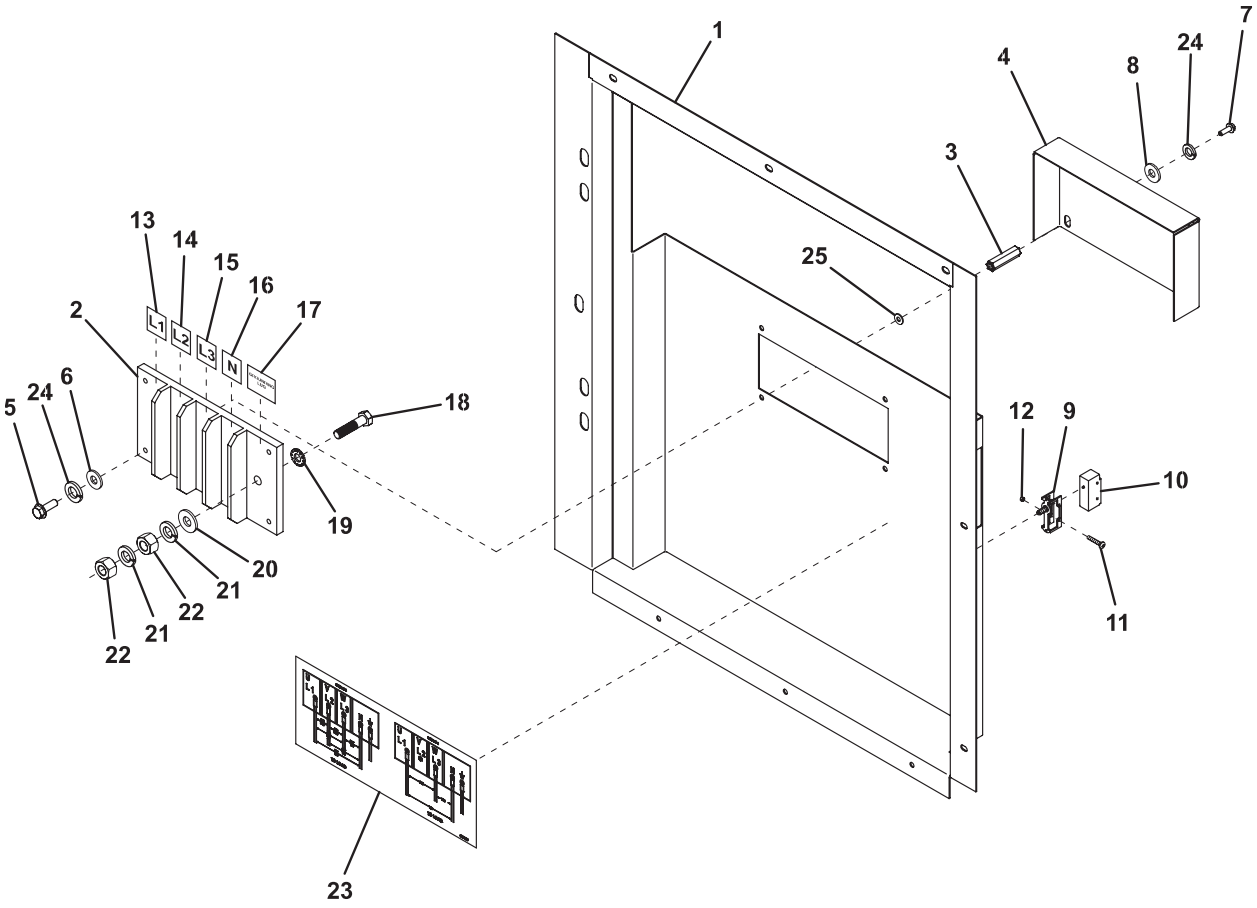


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ITEM #	PART #	DESCRIPTION	QTY.
1	GCU320000	CONTROL PANEL ASSEMBLY	1
2	GCU300000	PANEL, 1PHASE	1
3	C42104500	BREAKER,70A SHUNTTRIP, T25I	1
3	C42104800	BREAKER,150A,SHUNTTRIP, T45I	1
4	685880	BREAKER, 2POLE 1PH 45A, T25I	1
4	685930	BREAKER, 2POLE 1PH 90A, T45I	1
5	C42103400	BREAKER, 20A 120/240V	2
6	C42103600	BREAKER, 50A 120/240V	2
7	684640	RECEPTACLE, 20A 120V	2
8	C42500100	TRANSFORMER, 100:5	3
9	C42500100	TRANSFORMER, 100:5, T25I	1
9	C42500200	TRANSFORMER,200:5, T45I	1
10	CU41S030	TEMP, POWER SLOPE	1
11	C47100300	RECEPTACLE, TWISTLOCK, 50A	2
12	R980195	SCREW, 1/4-20NCX3/4	4
13	990340	WASHER, FLAT 1/4	8
14	CU45A010	HARNESS, AC/GEN	1
15	C51601442	SCREW, FLANGE 1/4 -20 X 3/4 PATCH	4
16	C51601441	NUT, FLANGE, 1/4"-20 Z	4
17	990340	WASHER, FLAT 1/4	8
18	990340	WASHER, FLAT 1/4	8
19	853752	DECAL, REMOTE START	1
20	853813	DECAL, KIT RECEPTACLES AND BREAKERS	1
21	66812	E-STOP PUSHBUTTON	1
22	686662	E-STOP LABEL PLATE	1
23	66817	E-STOP CONTACT (N.C.)	1
24	671278	REMOTE START CONTACT	1

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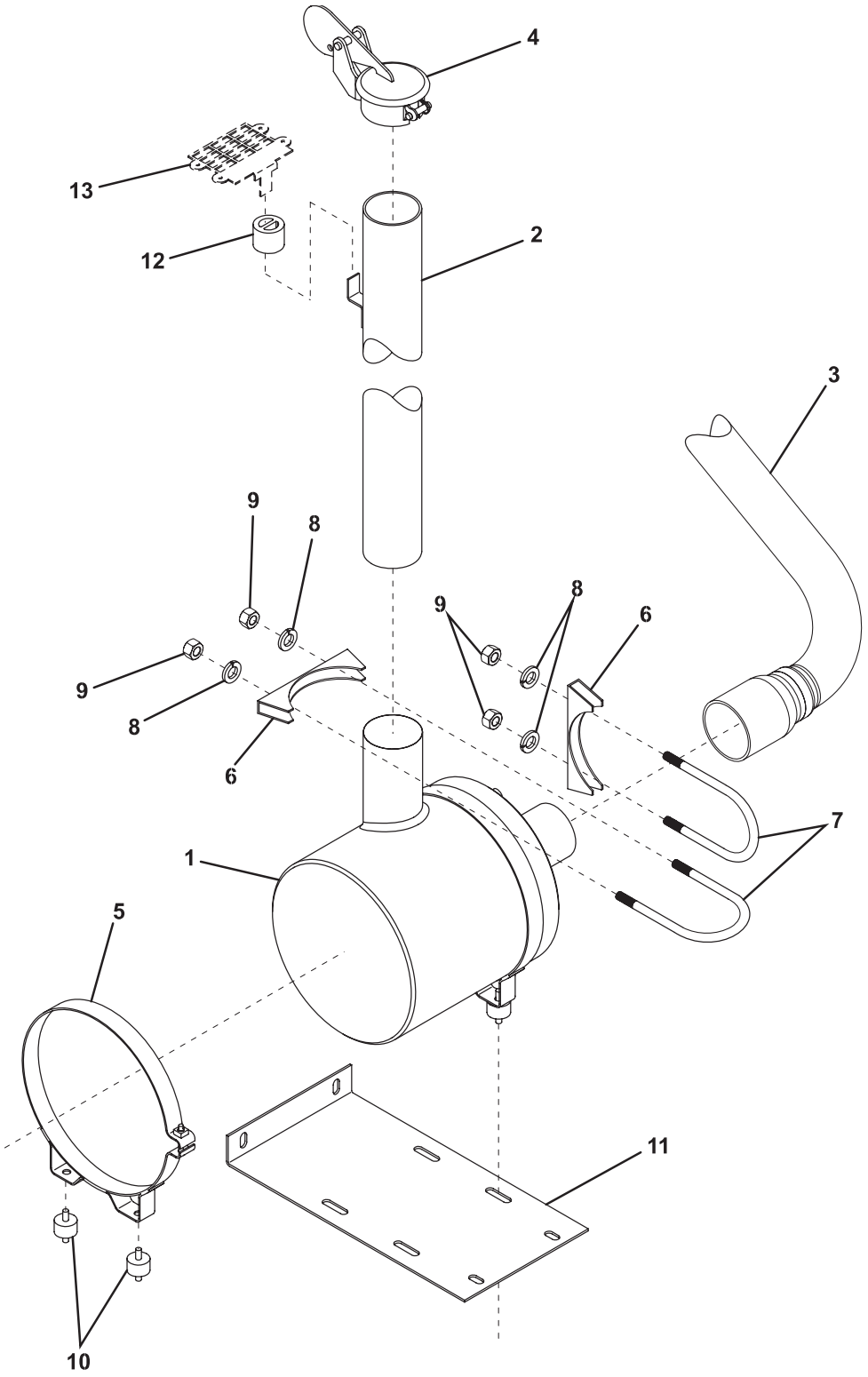
FIGURE 8 - DISTRIBUTION PANEL



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ITEM #	PART #	DESCRIPTION	QTY.
1	GCU310000	PANEL DISTRIBUTION	1
2	CC43A043	DISTRIBUTION, LUG PANEL	1
3	C37816	TURNBUCKLE 1/4-20 X 1 3/4	4
4	GCU310009	5 LUG REAR COVER	1
5	C51601443	SCREW, FLANGE 1/4 -20	4
6	990340	WASHER, FLAT 1/4	4
7	C51601442	SCREW, FLANGE 1/4 -20	4
8	990340	WASHER, FLAT 1/4	8
9	C42200702	PLUNGER (ACTUATOR)	1
10	C42200701	SWITCH, SNAP-ACTION, USE WITH 42200702	1
11		SCREWS, INCLUDED WITH ITEM 9	2
12		SCREWS, INCLUDED WITH ITEM 9	2
13	U51A400	DECAL, L1, L2, L3, N	1
14		INCLUDED WITH ITEM 13	1
15		INCLUDED WITH ITEM 13	1
16		INCLUDED WITH ITEM 13	1
17	851820	DECAL, SYMBOL FOR GROUND	1
18	C74954	SCREW, HEX 1/2 -13 X,2.5 SBZ	5
19	995970	WASHER, LOCK STAR 1/2	5
20	C74972	WASHER, FLAT 1/2 SBZ	5
21	C75240	LOCK, WASHER 1/2 SBZ	10
22	C74967	NUT, HEX 1/2-13 SBZ	10
23	852255	DECAL, 3PH DISTRIBUTION PANEL, ALL 5 LUG 3PH UNITS	1
24	990400	WASHER, LOCK 1/4	8
25	990340	WASHER, FLAT 1/4	8

FIGURE 9 - MUFFLER ASSEMBLY

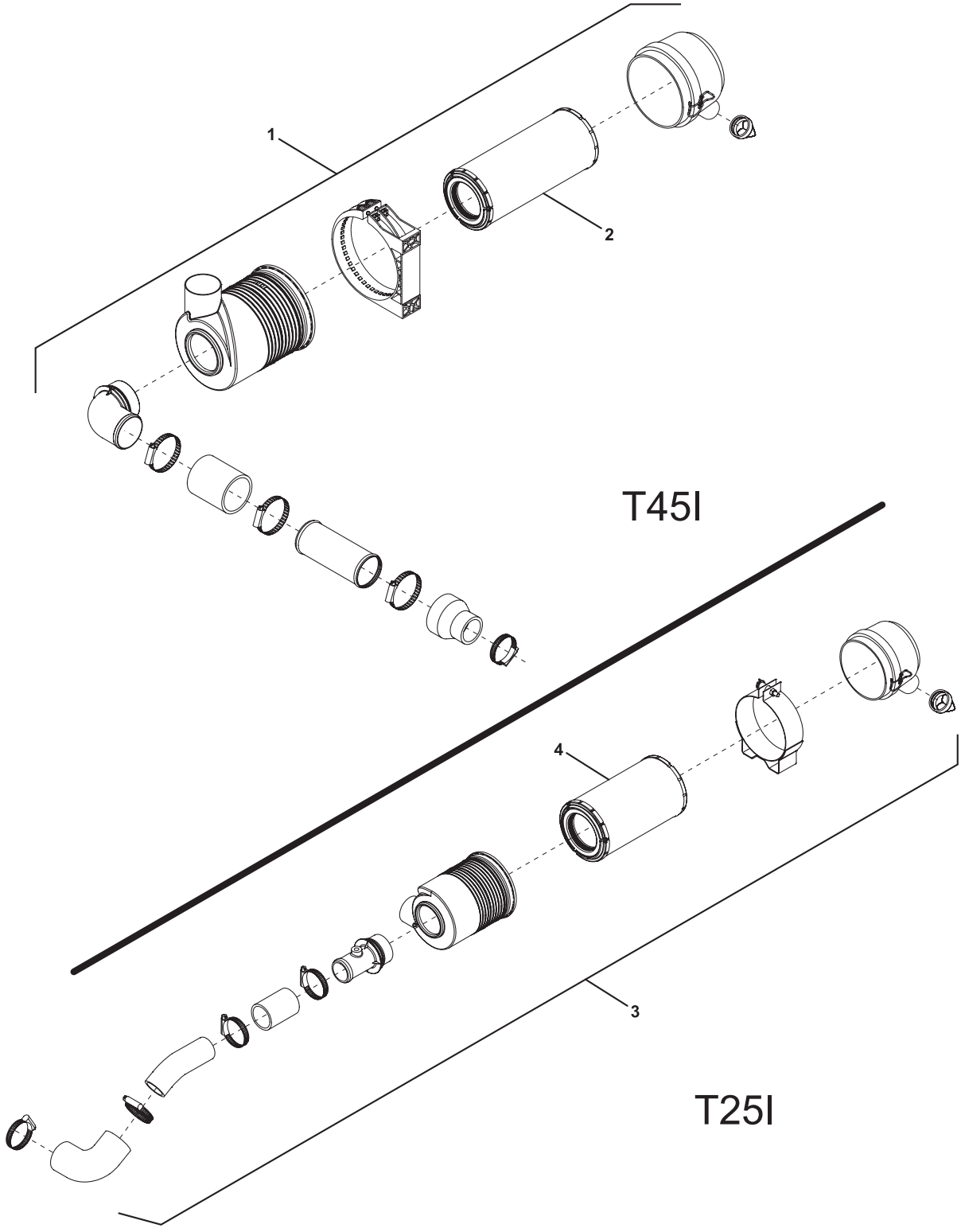


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ITEM #	PART #	DESCRIPTION	QTY.
1	742373	MUFFLER NELSON 2.5 IN-	1
2	GCI210015	MUFFLER PIPE OUT	1
3	GCI210012	AS-ENGINE TO MUFFLER EXHAUST PIPE, T25I	1
3	GCI210010	ENGINE TO MUFFLER EXHAUST PIPE, T45I	1
4	C33503401	CAP RAIN 2.5	1
5	791625	CLAMP MUFFLER BAND	2
6	C90101000	CLAMP U-BOLT 2.5	1
7		INCLUDED IN ITEM 6	2
8		INCLUDED IN ITEM 6	4
9		INCLUDED IN ITEM 6	4
10	C100550	BUMPER, RUBBER	4
11	GCU110060	MUFFLER FRONT MNT	1
12	C100552	RUBBER EXST ISOLATOR	1
13	GCU460005	TOP EXHST STABILZER	1

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FIGURE 10 - AIR CLEANER ASSEMBLY

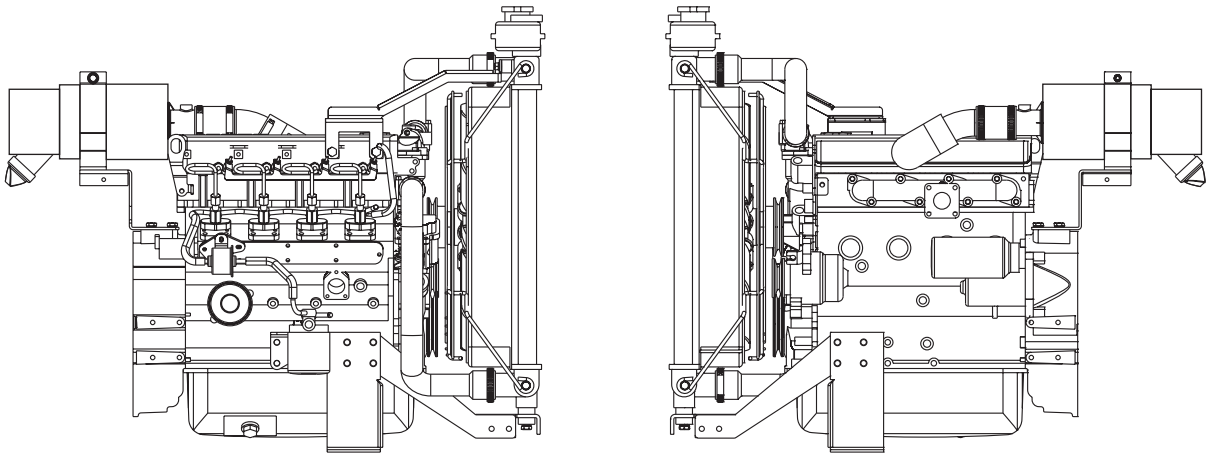


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ITEM #	PART #	DESCRIPTION	QTY.
1	834461	AIR CLEANER ASSEMBLY - T45	1
2	868139	AIR CLEANER ELEMENT	1
3	834458	AIR CLEANER ASSEMBLY - T25	1
4	834460	AIR CLEANER ELEMENT	1

FIGURE 11A - ENGINES - T25I

T25I Engine

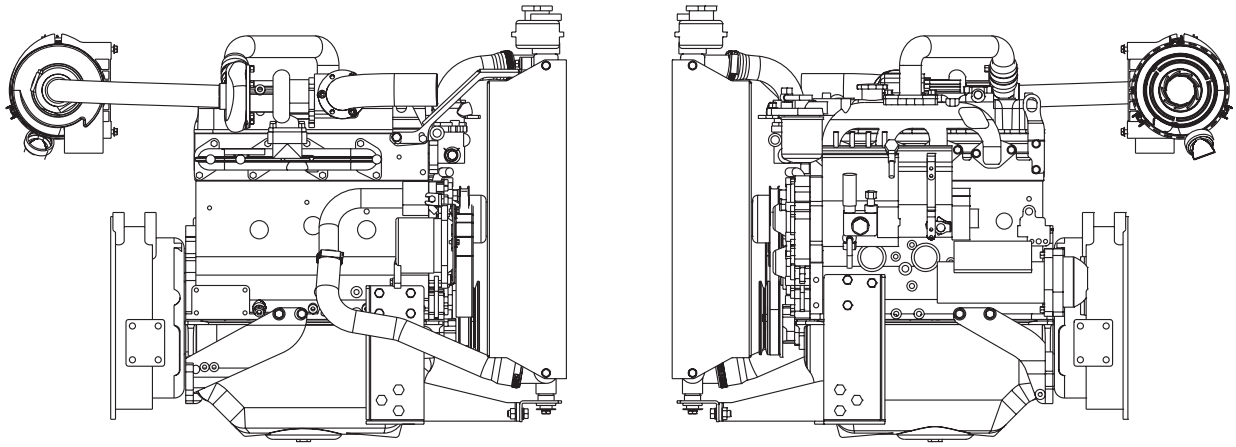


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ITEM #	PART #	DESCRIPTION	QTY.
1	868069	INJECTOR NOZZLE ASSEMBLY	1
2	868068	FUEL INJECTOR PUMP	1
3	868075	OIL FILTER	1
4	868142	DIPSTICK	1
5	868086	ENGINE STOP SOLENOID	1
6	868070	FUEL FEED PUMP ASSEMBLY	1
7	868063	GLOW PLUG	1
8	868065	THERMOSTAT	1
9	868036	FUEL FILTER	1
10	868067	FAN BELT	1
11	868143	WATER PUMP	1
12	868076	STARTER	1
13	868077	GENERATOR / ALTERNATOR	1
14	868023	OIL FILLER CAP	1
15	868024	OIL DRAIN PLUG	1
16	868121	VALVE COVER GASKET	1
17	868078	TIMER	1
18	868011	TEMPERATURE SENDER	1
19	868012	FAN	1
20	868013	FAN GUARD	1
21	868014	RADIATOR	1
22	C33200500	FILTER, WATER SEPARATOR	1
23	116075	TEMPERATURE SWITCH	1
24	116076	OIL PRESSURE SWITCH	1
25	116077	OIL PRESSURE SENDER	1

FIGURE 11B - ENGINES - T45I

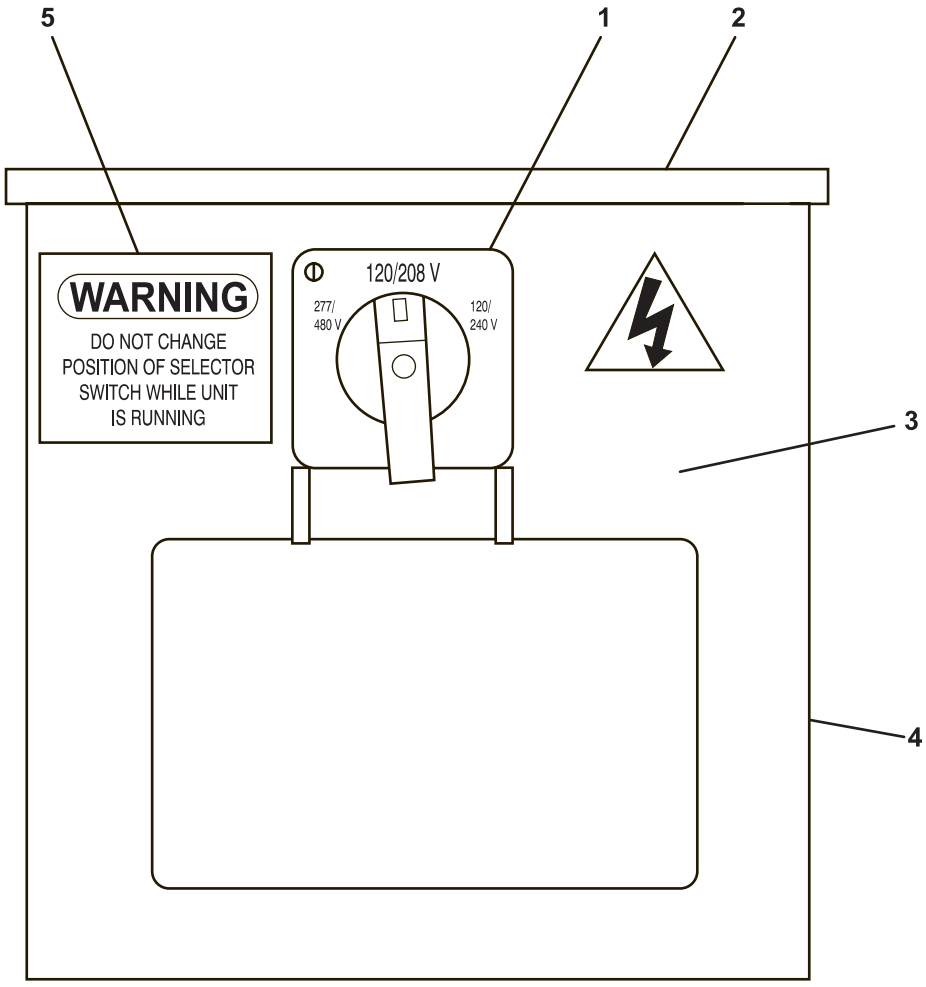
T45I Engine



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ITEM #	PART #	DESCRIPTION	QTY.
1	868048	INJECTOR NOZZLE ASSEMBLY	1
2	868033	OIL FILTER	1
3	868049	DIPSTICK	1
4	868034	ENGINE STOP SOLENOID	1
5	868051	FUEL FEED PUMP ASSEMBLY	1
6	868035	GLOW PLUG	1
7	868065	THERMOSTAT	1
8	868036	FUEL FILTER	1
9	868053	FAN BELT	1
10	868037	WATER PUMP	1
11	868039	GENERATOR / ALTERNATOR	1
12	868023	OIL FILLER CAP	1
13	868024	OIL DRAIN PLUG	1
14	868046	VALVE COVER GASKET	1
15	440346	TEMPERATURE SENDER	1
16	C33200500	FILTER, WATER SEPARATOR	1
17	116084	TEMPERATURE SWITCH	1
18	116086	FAN GUARD	1
19	116087	FAN	1
20	116077	OIL PRESSURE SENDER	
21	116076	OIL PRESSURE SWITCH	1

FIGURE 12 - VOLTAGE SELECTOR SWITCH

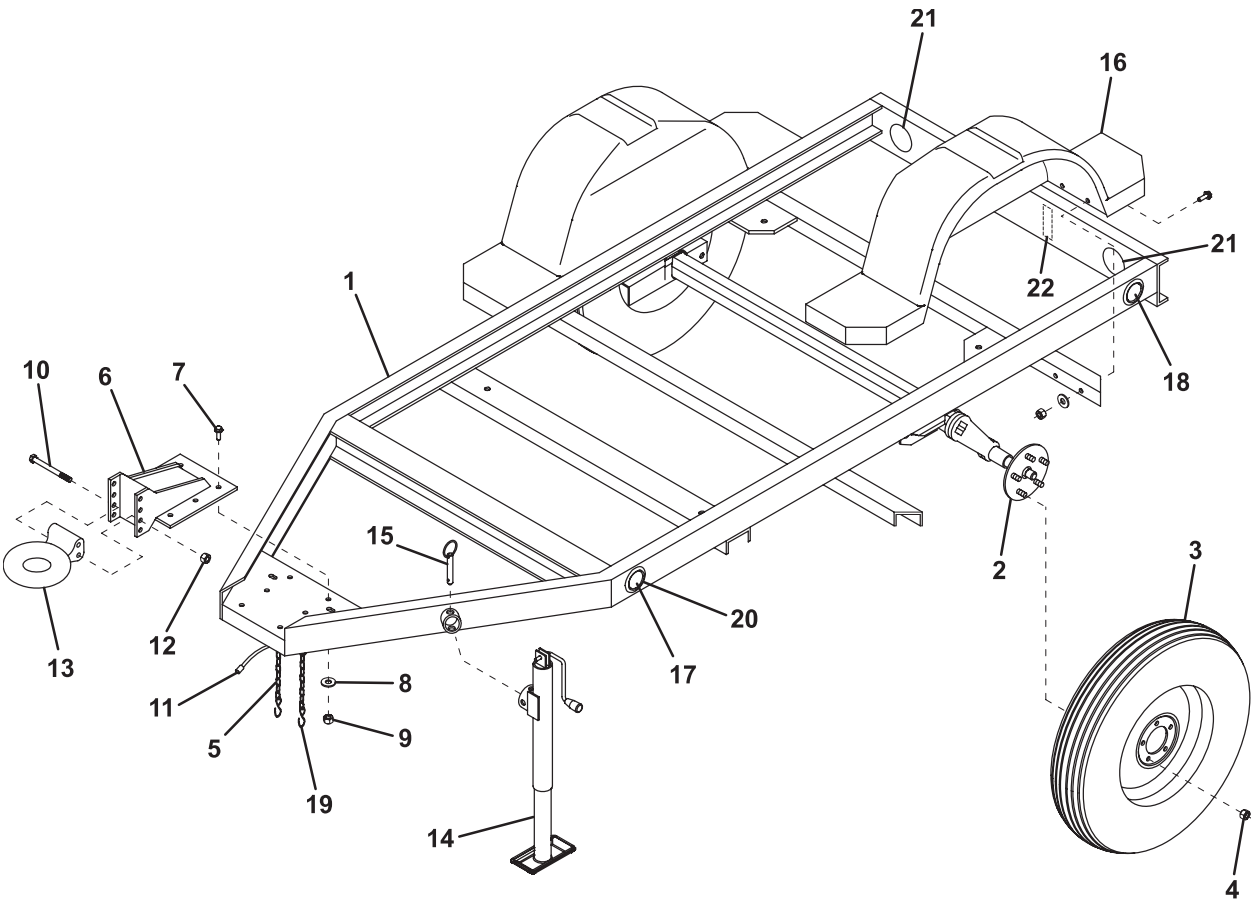


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ITEM #	PART #	DESCRIPTION	QTY.
1	C42201102	VOLTAGE SWITCH, T25I	1
1	C42202402	VOLTAGE SWITCH, T45I	1
2	CD42I031	BCI, FRAME EXTENSION, BACK	1
3	CD42I030	BCI, FRAME EXTENSION, FRONT	1
4	CD42I040	BCI. FRAME EXTENSION, SIDE	2
5	CL-008	DECAL, DO NOT CHANGE POSITION	1

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FIGURE 13 - TRAILER



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ITEM #	PART #	DESCRIPTION	QTY.
1	124877	TRAILER, STANDARD, NO BRAKES	1
2	834207	AXLE, COMPLETE	1
3	841061	TIRE AND WHEEL MOUNTED, ST205	2
4	840396	LUG NUT	12
5	834208	SAFETY CHAIN	2
6	834212	HITCH MOUNT	1
7	C15309	BOLT	6
8	990210	WASHER	6
9	993170	NUT	6
10	834213	BOLT	2
11	834214	CONNECTOR, 6 PIN	1
12	834215	NUT	2
13	834216	RING HITCH, STANDARD	1
14	834237	JACK	1
15	834218	PIN	1
16	840082	FENDER, PLASTIC	2
17	834221	AMBER CLEARANCE LIGHT	2
18	834233	RED CLEARANCE LIGHT	2
19	834209	C-HOOK, SAFETY CHAIN	2
20	834232	CLEARANCE LIGHT MOUNTING KIT	4
21	834234	STOP, TAIL LIGHT W/GROMMET AND PLUG	2
22	834236	TAG LIGHT KIT	1

OPTION #	PART #	DESCRIPTION	QTY.
0GSX0031	841082	CENTER MOUNT JACK	1
0GSX0164	841083	LED TRAILER LIGHTS	2
0GSX0030	840223	CORNER JACKS	2
	840223	JACK MOUNT TUBE	2
0GSX0040	840641	TRAILER HITCH, 2" BALL	1
0GSX0115	C11261	TRAILER HITCH, 2 /16" BALL, 12,000 LB RATED	1
0GSX0116	261190	TRAILER LIGHT CONNECTOR, 4 POLE FLAT	1
0GSX0137	841067	SPARE TIRE AND WHEEL, MOUNTS ON A FRAME	1
	124317	SPARE TIRE MOUNTING BRACKET	1
	841070	SPARE TIRE MOUNTING BRACKET,UNIVERSAL	1
0GSX0113	124877	TRAILER, STANDARD, NO BRAKES	1
0GSX0118	124879	TRAILER, HYDRAULIC BRAKES	1
0GSX0114	124878	TRAILER, ELECTRIC BRAKES	1

FIGURE 14 - OPTIONS

OPTION #	PART #	DESCRIPTION	QTY.
0GSX0086	686711	BATTERY DISCONNECT SWITCH	1
0GSX0036	261235	TRICKLE CHARGER WITH MALE RECEPTACLE	1
	682776	RECEPTACLE, 15A, 125V,	1
	682777	RECEPTACLE, 15A, 125V,	1
0GSX0037	261236	3.5A BATTERY CHARGER WITH MONITORING	1
	682776	RECEPTACLE, 15A, 125V,	1
	682777	RECEPTACLE, 15A, 125V,	1
0GSX0141	C33301001	BLOCK HEATER, ISUZU, T45	1
	682776	RECEPTACLE, 15A, 125V,	1
	682777	RECEPTACLE, 15A, 125V,	1
0GSX0143	C33301000	BLOCK HEATER, ISUZU, T25	1
	682776	RECEPTACLE, 15A, 125V,	1
	682777	RECEPTACLE, 15A, 125V,	1
0GSX0057		C-SERIES CAM LOCK DISTRIBUTION PANEL WITH STANDARD LUG PANEL	1
0GSX0066	C33204000	EXTERNAL FUEL CONNECTION	1
0GSX0145	C33203000	ELECTRONIC GOVERNOR, T45	1
	C42300600	MAG PICK UP	1
	742376	ACTUATOR, ELECTRONIC, WOODWARD	1
0GSX0149	C33203000	ELECTRONIC GOVERNOR, T25	1
	C42300600	MAG PICKUP	1
	741193	ACTUATOR, APECS	1
0GSX0042	C41101000	LIGHTED CONTROL PANEL	1
0GSX0071	C42300800	LOW COOLANT SHUTDOWN	1